

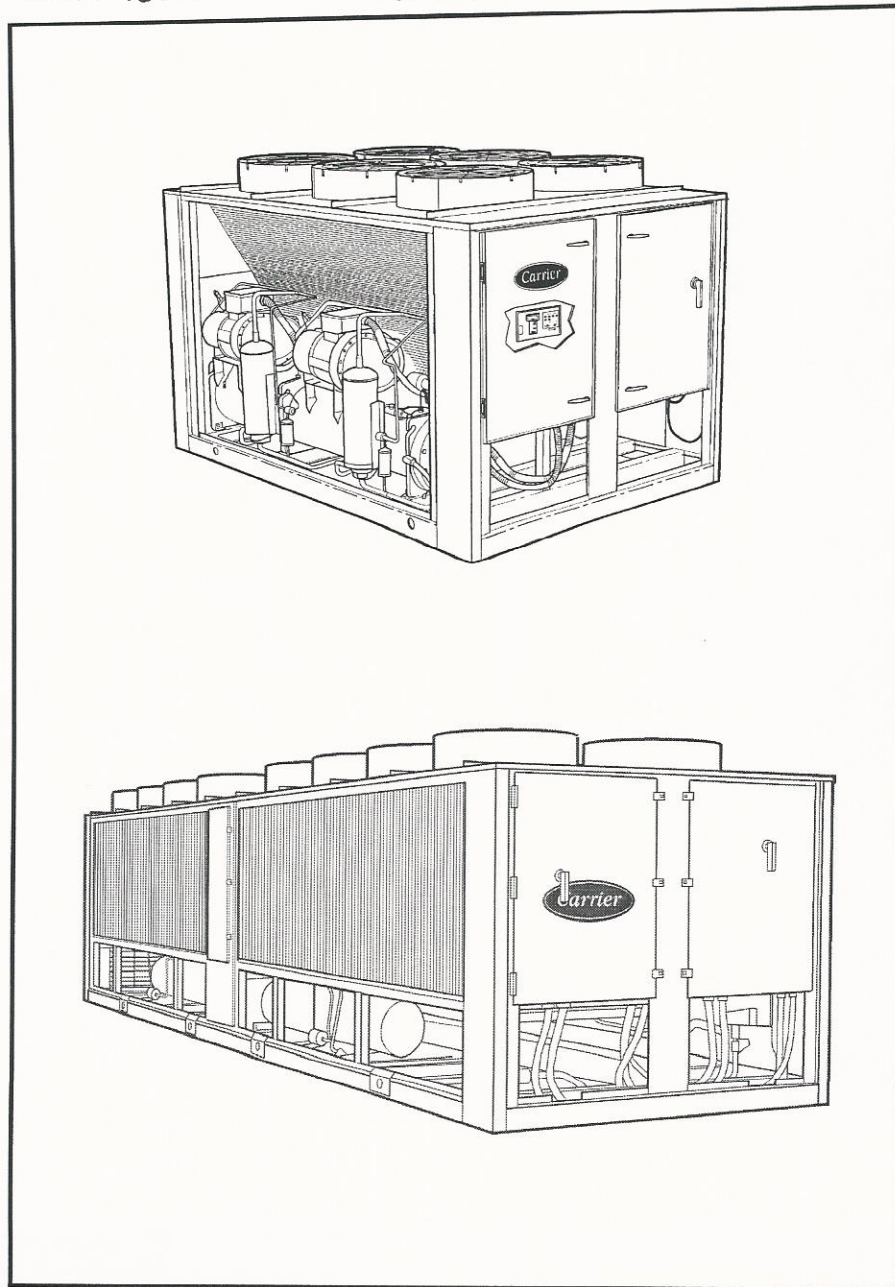


## Product Data

# 30GXR, R080-450 ECOLOGIC™ Air-Cooled Chiller with ComfortLink™ Controls 50/60 Hz

80 to 450 Tons (267 to 1511 kW)

MODEL#: 30GXR225-B-661F2  
S/N: 2005 F 14852 + ... 14848  
YR: 2005 460-3-60  
225 TONS R-134A



ECOLOGIC™ 30GXR,R air-cooled chillers are designed from the ground up to meet the needs of today and tomorrow, including:

- Chlorine-free HFC-134a refrigerant
- Low noise rotary screw compressors and Aero-acoustic fans
- Compact footprint
- Dual independent refrigerant circuits
- Simple and easy to use ComfortLink communicating controls
- Handheld Navigator control panel as standard with remote service port
- Wide operating envelope from -20 to 125 F (-28 to 52 C)
- Accurate temperature control, with return fluid compensation
- Precise multiple-step capacity
- Superior full and part-load efficiency
- Low pressure drop mechanically cleanable coolers
- Full load factory run tested
- Wide range of sizes available
- Across the line (30GXR) and Wye Delta (30GXR) starting options
- Loss of chilled water flow protection

## Features/Benefits

### Easy installation

The 30GXR,R unit has a compact design that is up to 50% smaller than some competitive chillers. The compact footprint can yield substantial installation savings by requiring less structural steel, concrete, security fencing or architectural screening. The 30GXR,R unit is delivered as a complete package for easy installation.

A quick start-up is assured once installation is complete, since each 30GXR,R unit is manufactured at an ISO 9002 listed manufacturing facility

# Model number nomenclature



30GX R 225 - A - 6 6 1 FZ  
 30GX N 125 M S - 6 4 1 AA

**30GX** – ECOLOGIC™ Air Cooled Chiller with ComfortLink™ Controls

**Compressor Start Option**

- N – Across the Line Start
- R – Wye-Delta Start

Nominal Sizes (60 Hz Only)					60 Hz Duplex Sizes	
080	125	174	264	350	370	
090	135	204	281		390	
106	150	225	301		415	
114	160	249	325		450	

Nominal Sizes (50 Hz Only)					50 Hz Duplex Sizes	
080	125	175	265	350	220	345
090	135	205	281		240	365
106	150	225	301		275	395
115	160	250	325		300	410
					320	440

**Cooler Head Option**

- Standard Cooler Head
- M – Minus One Pass
- P – Plus One Pass
- A – Standard Cooler Heater Head Duplex "A" Module
- B – Standard Cooler Heater Head Duplex "B" Module

**Electric Service Rating & Control Options**  
 125° F Electric Service Rating (Available on all sizes):

- A – Navigator (Standard)
- F – Navigator and Energy Management Module
- T – "Service Option" Includes Navigator, Energy Management Module, Service Port and GFI Convenience Outlet
- V – "Service Option" Includes Navigator, Energy Management Module and Service Port (50 Hz and 380-3-60 Only)

**115° F Electric Service Rating (Sizes 080-125, 220, 240 Only):**

- Navigator (Standard)
- E – Navigator and Energy Management Module
- S – "Service Option" Includes Navigator, Energy Management Module, Service Port and GFI Convenience Outlet
- U – "Service Option" Includes Navigator, Energy Management Module and Service Port (50 Hz and 380-3-60 Only)

**Factory Installed Options (FIOP)**

**Packaging**

- 1 – Standard Domestic (Coil Cover)
- 2 – Coil Cover and Bottom Skid
- 3 – Standard Export with Coil Cover, Top and Bottom Skid & Shipping Bag
- 4 – Full Export Crate
- 5 – Option #1 above with Factory Installed Security Grilles
- 6 – Option #2 above with Factory Installed Security Grilles
- 7 – Option #3 above with Factory Installed Security Grilles
- 8 – Option #4 above with Factory Installed Security Grilles

**Series – 4**

**Voltage**

- 1 – 575-3-60
- 2 – 230-3-60
- 4 – 230-3-60
- 5 – 208/230-3-60
- 6 – 460-3-60
- 2 – 380-3-60 (Export Only)
- 8 – 230-3-50
- 9 – 380/415-3-50

**Enviro-Shield™ Corrosion Protection Options**

- Standard Copper Tube/Aluminum Fin
- K – Copper Tube/Aluminum Fin Precoated
- C – Copper Tube/Copper Fin and Copper Tube Sheet
- E – Copper Tube/Aluminum Fin with E-Coat
- F – Copper Tube/Copper Fin and Copper Tube Sheet with E-Coat

# Physical data — English



## 60 Hz UNITS

UNIT SIZE 30GXN,R	080	090	106	114	125	135	150	160	174	204	225	249	264
<b>OPERATING WEIGHT (lb)</b> Cu-Al Cu-Cu	6313 6908	6333 7008	7514 8209	7524 8219	7553 8248	7714 8414	8784 9834	9,072 10,172	9,714 11,114	12,747 14,147	12,985 14,360	13,867 15,567	13,902 15,602
<b>REFRIGERANT TYPE</b> Refrigerant Charge (lb) Ckt-A/Ckt-B	HFC-134a												
	106/96	115/96	150/123	160/123	160/141	175/175	156/228	181/243	263/207	270/170	285/187	339/160	839/195
<b>COMPRESSORS</b> Quantity Economized No. Capacity Steps Standard Optional (maximum) Min. Capacity Step (%) Standard Optional	Semi-Hermetic, Twin Screw												
	2 No	2 No	2 No	2 No	2 Yes	2 Yes	2 Yes	2 Yes	2 Yes	3 Yes	3 Yes	3 Yes	3 Yes
	6 8	6 8	6 8	6 8	6 8	6 8	6 8	6 8	6 8	8 10	8 10	8 10	8 10
	20 10	20 10	20 10	20 10	20 10	20 10	20 10	20 10	20 10	15 10	15 10	15 10	15 10
<b>COOLER*</b> Net Fluid Volume (gal) Maximum Refrigerant Pressure (psig) Maximum Fluid Side Pressure (psig)	Flooded Type Shell and Tube with Enhanced Copper Tubes												
	18.9	18.9	22.6	22.6	33.4	33.4	24	28.5	28.5	38.5	43.1	47.2	47.2
	220	220	220	220	220	220	220	220	220	220	220	220	220
	300	300	300	300	300	300	300	300	300	300	300	300	300
<b>FLUID CONNECTIONS (in.)</b> Inlet and Outlet Drain (NPT)	Victaulic Connections												
	4 1/2	4 1/2	5 1/2	5 1/2	5 1/2	5 1/2	4 1/2	5 1/2	5 1/2	6 1/2	6 1/2	6 1/2	6 1/2
<b>CONDENSER FANS</b> Standard/Low Noise Type Fan Speed (rpm) No. Blades...Dia. (in.) No. Fans...Total kW Total Airflow (cfm)† High Static Type Fan Speed (rpm) No. Blades...Dia. (in.) No. Fans...Total kW Total Airflow (cfm)†	Shrouded Axial Type, Vertical Discharge												
	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140
	11...30	11...30	11...30	11...30	11...30	11...30	11...30	11...30	11...30	11...30	11...30	11...30	11...30
	4...6.4	4...6.4	6...9.6	6...9.6	6...9.6	6...9.6	8...12.8	8...12.8	10...16	10...16	10...16	12...19.2	12...19.2
	45,600	45,600	68,400	68,400	68,400	68,400	91,200	91,200	114,000	114,000	114,000	136,800	136,800
	Propeller Type, Vertical Discharge												
	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
	12...30	12...30	12...30	12...30	12...30	12...30	12...30	12...30	12...30	12...30	12...30	12...30	12...30
	4...16.4	4...16.4	6...24.6	6...24.6	6...24.6	6...24.6	8...32.8	8...32.8	10...41	10...41	10...41	12...49.2	12...49.2
	39,200	39,200	58,800	58,800	58,800	58,800	78,400	78,400	98,000	98,000	98,000	117,600	117,600
<b>CONDENSER COILS</b> Fins/in. No. Rows Total Face Area (sq ft) Maximum Working Pressure (psig)	3/8-in. OD Copper Tubes with Aluminum Fins												
	17	17	17	17	17	17	17	17	17	17	17	17	17
	3	3	4	4	3	4	4	4	4	4	4	4	4
	135	135	162	162	162	162	216	216	269	269	269	324	324
	450	450	450	450	450	450	450	450	450	450	450	450	450

UNIT SIZE 30GXN,R	281	301	325	350	370	390	415	450
<b>OPERATING WEIGHT (lb)</b> Cu-Al Cu-Cu	18,718 21,923	18,738 21,943	18,778 21,983	18,828 22,033	21,769 24,194	21,617 24,017	22,974 25,774	25,970 28,720
<b>REFRIGERANT TYPE</b> Refrigerant Charge (lb) Ckt-A/Ckt-B	HFC-134a							
	385/385	400/400	415/415	430/430	285/185** 263/156††	340/195** 175/175††	340/195** 263/181††	285/185** 285/185††
<b>COMPRESSORS</b> Quantity Economized No. Capacity Steps Standard Optional (maximum) Min. Capacity Step (%) Standard Optional	Semi-Hermetic, Twin Screw							
	4 Yes	4 Yes	4 Yes	4 Yes	5 Yes	5 Yes	5 Yes	6 Yes
	10	10	10	10	14	14	14	16
	12	12	12	12	18	18	18	20
	10	10	10	10	8	7	8	7.5
	5	5	5	5	4	3.5	4	5
<b>COOLER*</b> Net Fluid Volume (gal) Maximum Refrigerant Pressure (psig) Maximum Fluid Side Pressure (psig)	Flooded Type Shell and Tube with Enhanced Copper Tubes							
	56.1	56.1	56.1	56.1	67.1	80.6	75.7	86.2
	220	220	220	220	220	220	220	220
	300	300	300	300	300	300	300	300
<b>FLUID CONNECTIONS (in.)</b> Inlet and Outlet Cooler Interconnecting (in.) Drain (Qty...NPT)	Victaulic Connections							
	8	8	8	8	8	8	8	8
	1...1/2	1...1/2	1...1/2	1...1/2	2...1/2	2...1/2	2...1/2	2...1/2
<b>CONDENSER FANS</b> Standard/Low Noise Type Fan Speed (rpm) No. Blades...Dia. (in.) No. Fans...Total kW Total Airflow (cfm)† High Static Type Fan Speed (rpm) No. Blades...Dia. (in.) No. Fans...Total kW Total Airflow (cfm)†	Shrouded Axial Type, Vertical Discharge							
	1140	1140	1140	1140	1140	1140	1140	1140
	11...30	11...30	11...30	11...30	11...30	11...30	11...30	11...30
	16...25.6	16...25.6	16...25.6	16...25.6	18...28.8	18...28.8	20...32	20...32
	182,400	182,400	182,400	182,400	205,200	205,200	228,000	228,000
	Propeller Type, Vertical Discharge							
	1750	1750	1750	1750	1750	1750	1750	1750
	12...30	12...30	12...30	12...30	12...30	12...30	12...30	12...30
	16...65.6	16...65.6	16...65.6	16...65.6	18...73.8	18...73.8	20...82	20...82
	156,800	156,800	156,800	156,800	176,400	176,400	196,000	196,000
<b>CONDENSER COILS</b> Fins/in., Std No. Rows Total Face Area (sq ft) Maximum Working Pressure (psig)	3/8-in. OD Copper Tubes with Aluminum Fins							
	17	17	17	17	17	17	17	17
	4	4	4	4	4	4	4	4
	432	432	432	432	485	486	540	538
	450	450	450	450	450	450	450	450

### LEGEND

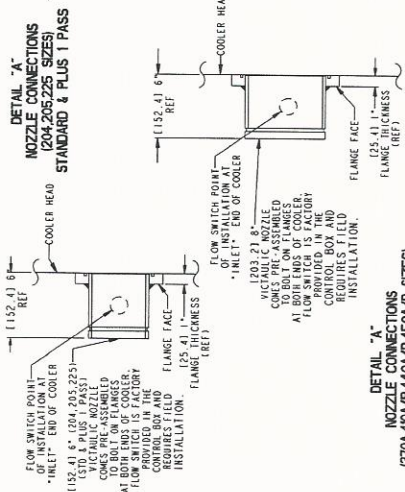
Ckt — Circuit  
Cu-Al — Standard Coils with Copper Tubes and Aluminum Fins  
Cu-Cu — Optional Coils with Copper Tubes and Copper Fins

\*Each cooler is shipped with approximately 5 gallons of propylene glycol to provide freeze protection during storage and shipment.

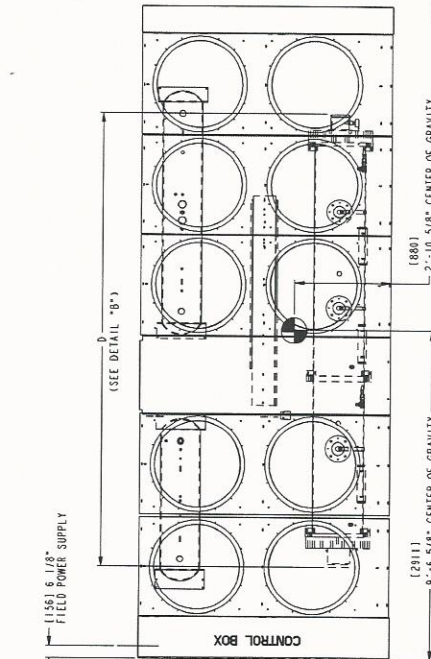
†Based on rated external static pressure of 0.4 in. wg or 0.8 in. wg as appropriate.

\*\*Module A.  
††Module B.

# 0GXN,R204, 205, 225

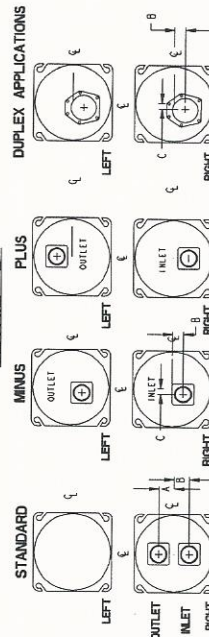
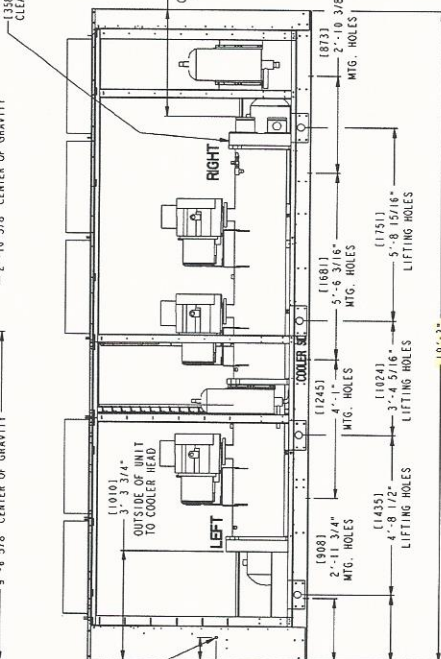
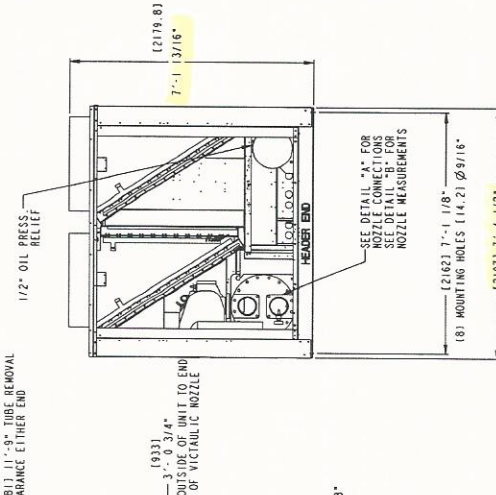


**DETAIL 'A'**  
NOZZLE CONNECTIONS  
(370A, 410A/B, 440A/B, 450A/B SIZES)  
204, 205, 225 SIZES MINUS 1 PASS



- NOTES: 1. UNIT MUST HAVE CLEARANCES FOR AIR FLOW AS FOLLOWS:  
 ENDS - (1524 MM) 6 FT. FROM SOLID SURFACE.  
 SIDES - (1829 MM) 6 FT. FROM SOLID SURFACE.  
 2. UNIT WITH SOUND HOODS REQUIRE CLEARANCES FOR AIR FLOW AS FOLLOWS:  
 ENDS - (1524 MM) 6 FT. FROM SOLID SURFACE.  
 SIDES - (1829 MM) 6 FT. FROM SOLID SURFACE.  
 TOP - DO NOT RESTRICT IN ANY WAY.  
 3. CLEARANCES TO OUTSIDE EDGE OF HOODS:  
 ENDS - (1524 MM) 5 FT. TO OUTSIDE EDGE OF HOODS.  
 SIDES - (1829 MM) 6 FT. TO OUTSIDE EDGE OF HOODS.  
 SEE INSTALLATION INSTRUCTIONS FOR ALL OTHER VALUES.  
 4. FLOW SWITCH IS FACTORY SUPPLIED AND MUST BE INSTALLED IN THE ENTERING FLUID NOZZLE.

UNIT	TOTAL OPERATING WEIGHT-COPPER FIN		TOTAL OPERATING WEIGHT-COPPER FIN	
	LBS.	KG.		LBS.
306XNR204	12,747	5,782	14,147	6,417
306XNR205, 410B	12,585	5,672	13,890	6,300
306XNR225, 370A, 410A, 440A/B, 450A/B	12,985	5,890	14,380	6,514



UNIT	A	B	C	D	NUMBER OF CONNECTION PASSES	SIZE
306XNR204, 205, 225	5.53	5.53	-	12'-10 1/2"	2	6"
306XNR204, 205, 225	MINUS	1.97	98	13'-4 1/2"	1	8"
306XNR204, 205, 225	PLUS	5.53	5.53	13'-4 1/2"	3	6"
306XNR370A, 410A/B, 440A/B, 450A/B	MINUS	1.97	98	13'-4 1/2"	1	8"

SEE DETAIL 'A' FOR NOZZLE CONNECTIONS  
 SEE DETAIL 'B' FOR NOZZLE MEASUREMENTS  
 3/4" NPT DRAIN DOWN (END OPPOSITE INLET)