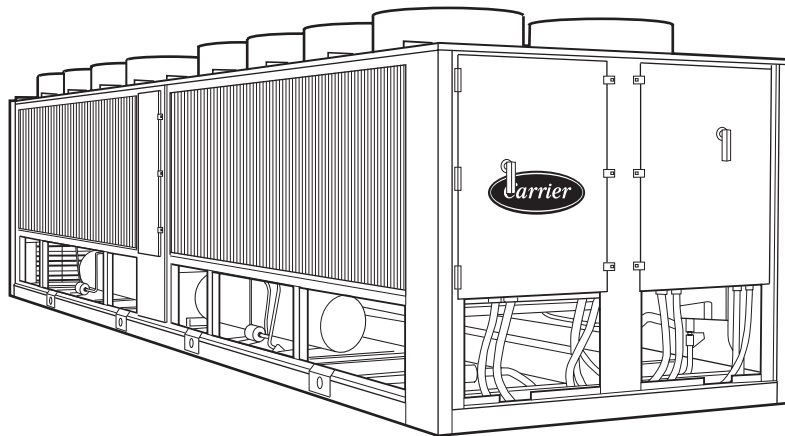
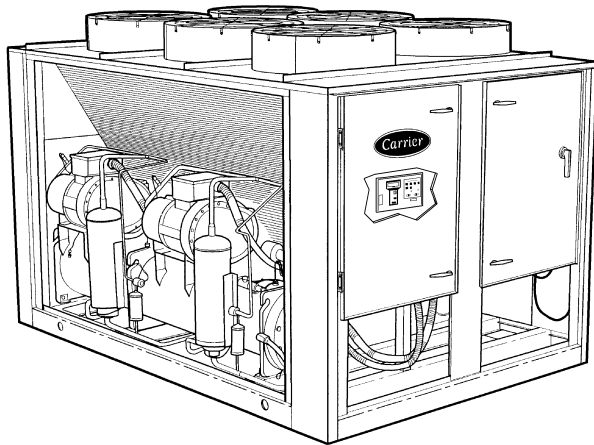




Product Data

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

80 to 450 Tons (267 to 1511 kW)



ECOLOGIC™ 30GXN,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 (30GXN) and Wye Delta (30GXR) starting options
- Loss of chilled water flow protection

Features/Benefits

Easy installation

The 30GXN,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 30GXN,R unit is delivered as a complete package for easy installation.

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

Model number nomenclature



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
OPERATING WEIGHT (lb)													
Cu-AI	6313	6333	7514	7524	7553	7714	8784	9,072	9,714	12,747	12,985	13,867	13,902
Cu-Cu	6908	7008	8209	8219	8248	8414	9834	10,172	11,114	14,147	14,360	15,567	15,602
REFRIGERANT TYPE	HFC-134a												
Refrigerant Charge (lb) Ckt-A/Ckt-B	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
COMPRESSORS	Semi-Hermetic, Twin Screw												
Quantity	2	2	2	2	2	2	2	2	2	3	3	3	3
Economized	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. Capacity Steps													
Standard	6	6	6	6	6	6	6	6	6	8	8	8	8
Optional (maximum)	8	8	8	8	8	8	8	8	8	10	10	10	10
Min. Capacity Step (%)													
Standard	20	20	20	20	20	20	20	20	20	15	15	15	15
Optional	10	10	10	10	10	10	10	10	10	10	10	10	10
COOLER*	Flooded Type Shell and Tube with Enhanced Copper Tubes												
Net Fluid Volume (gal)	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
Maximum Refrigerant Pressure (psig)	220	220	220	220	220	220	220	220	220	220	220	220	220
Maximum Fluid Side Pressure (psig)	300	300	300	300	300	300	300	300	300	300	300	300	300
FLUID CONNECTIONS (in.)	Victaulic Connections												
Inlet and Outlet	4	4	5	5	5	5	4	5	5	6	6	6	6
Drain (NPT)	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
CONDENSER FANS	Shrouded Axial Type, Vertical Discharge												
Standard/Low Noise Type	Shrouded Axial Type, Vertical Discharge												
Fan Speed (rpm)	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140	1140
No. Blades...Dia. (in.)	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
No. Fans...Total kW	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
Total Airflow (cfm)†	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
High Static Type	Propeller Type, Vertical Discharge												
Fan Speed (rpm)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
No. Blades...Dia. (in.)	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
No. Fans...Total kW	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
Total Airflow (cfm)†	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
CONDENSER COILS	3/8-in. OD Copper Tubes with Aluminum Fins												
Fins/in.	17	17	17	17	17	17	17	17	17	17	17	17	17
No. Rows	3	3	4	4	3	4	4	4	4	4	4	4	4
Total Face Area (sq ft)	135	135	162	162	162	162	216	216	269	269	269	324	324
Maximum Working Pressure (psig)	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
OPERATING WEIGHT (lb)								
Cu-AI	18,718	18,738	18,778	18,828	21,769	21,617	22,974	25,970
Cu-Cu	21,923	21,943	21,983	22,033	24,194	24,017	25,774	28,720
REFRIGERANT TYPE	HFC-134a							
Refrigerant Charge (lb) Ckt-A/Ckt-B	385/385	400/400	415/415	430/430	285/185** 263/156††	4 340/195** 175/175††	4 340/195** 263/181††	4 285/185** 285/185††
COMPRESSORS	Semi-Hermetic, Twin Screw							
Quantity	4	4	4	4	5	5	5	6
Economized	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. Capacity Steps								
Standard	10	10	10	10	14	14	14	16
Optional (maximum)	12	12	12	12	18	18	18	20
Min. Capacity Step (%)								
Standard	10	10	10	10	8	7	8	7.5
Optional	5	5	5	5	4	3.5	4	5
COOLER*	Flooded Type Shell and Tube with Enhanced Copper Tubes							
Net Fluid Volume (gal)	56.1	56.1	56.1	56.1	67.1	80.6	75.7	86.2
Maximum Refrigerant Pressure (psig)	220	220	220	220	220	220	220	220
Maximum Fluid Side Pressure (psig)	300	300	300	300	300	300	300	300
FLUID CONNECTIONS (in.)	Victaulic Connections							
Inlet and Outlet	8	8	8	8	8	8	8	8
Cooler Interconnecting (in.)	—	—	—	—	8	8	8	8
Drain (Qty...NPT)	1...1/2	1...1/2	1...1/2	1...1/2	2...1/2	2...1/2	2...1/2	2...1/2
CONDENSER FANS	Shrouded Axial Type, Vertical Discharge							
Standard/Low Noise Type	Shrouded Axial Type, Vertical Discharge							
Fan Speed (rpm)	1140	1140	1140	1140	1140	1140	1140	1140
No. Blades...Dia. (in.)	11...30	11...30	11...30	11...30	11...30	11...30	11...30	11...30
No. Fans...Total kW	16...25.6	16...25.6	16...25.6	16...25.6	18...28.8	18...28.8	20...32	20...32
Total Airflow (cfm)†	182,400	182,400	182,400	182,400	205,200	205,200	228,000	228,000
High Static Type	Propeller Type, Vertical Discharge							
Fan Speed (rpm)	1750	1750	1750	1750	1750	1750	1750	1750
No. Blades...Dia. (in.)	12...30	12...30	12...30	12...30	12...30	12...30	12...30	12...30
No. Fans...Total kW	16...65.6	16...65.6	16...65.6	16...65.6	18...73.8	18...73.8	20...82	20...82
Total Airflow (cfm)†	156,800	156,800	156,800	156,800	176,400	176,400	196,000	196,000
CONDENSER COILS	3/8-in. OD Copper Tubes with Aluminum Fins							
Fins/in., Std	17	17	17	17	17	17	17	17
No. Rows	4	4	4	4	4	4	4	4
Total Face Area (sq ft)	432	432	432	432	485	486	540	538
Maximum Working Pressure (psig)	450	450	450	450	450	450	450	450

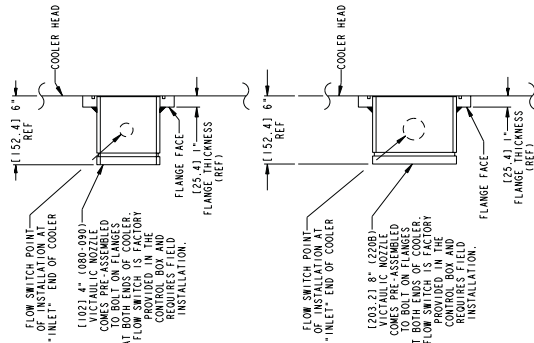
LEGEND

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

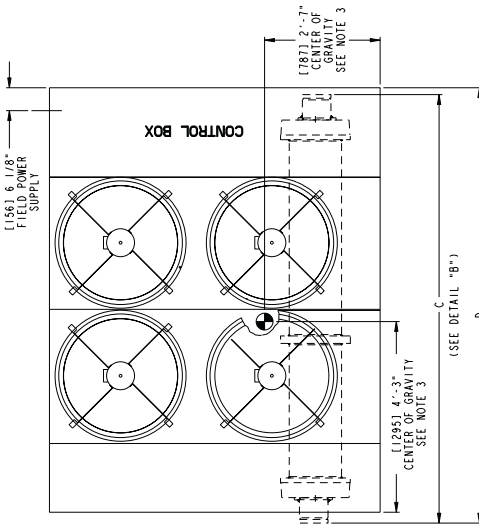
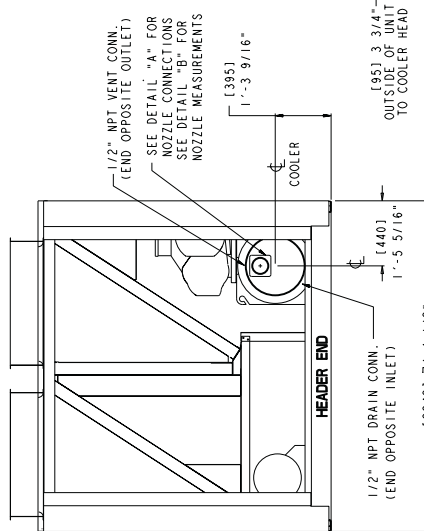
*Each cooler is shipped with approximately 5 gallons of propylene glycol to provide freeze protection during storage and shipment.
 †Based on rated external static pressure of 0.4 in. wg or 0.8 in. wg as appropriate.
 **Module A.
 ††Module B.

30GXN,R080, 090

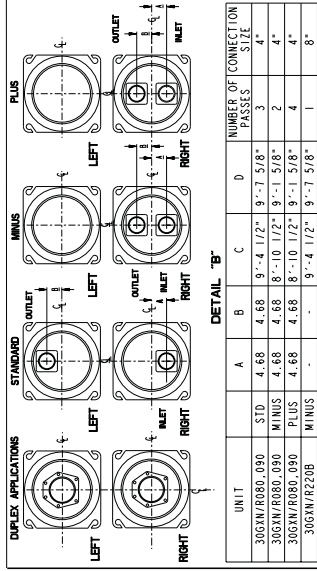
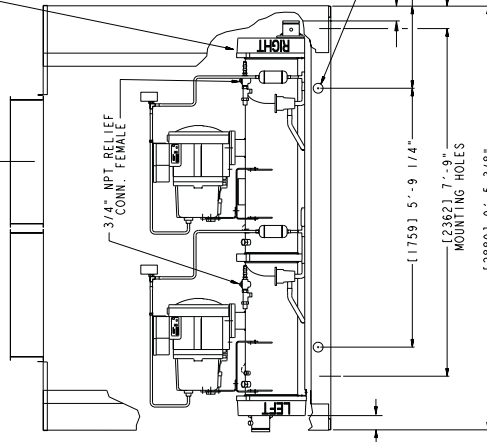
DETAIL "A" NOZZLE CONNECTIONS (080-090 SIZES)



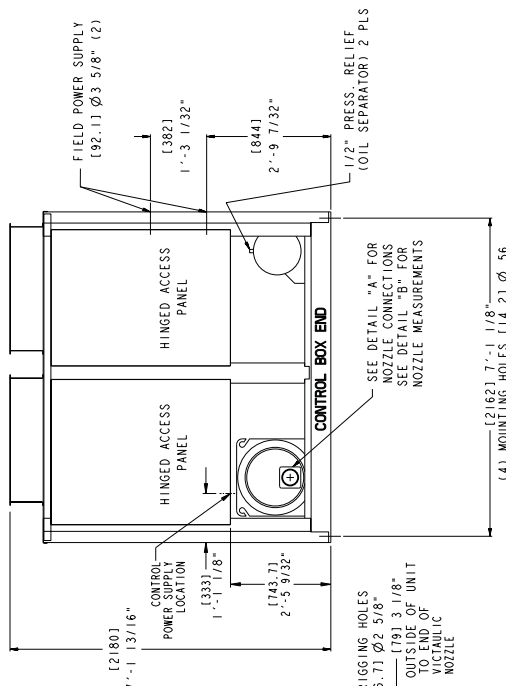
DETAIL "A" NOZZLE CONNECTIONS (220B SIZE)



[2413] 7'-11" TUBE REMOVAL CLEARANCE EITHER END



- NOTES: 1. UNIT MUST HAVE CLEARANCES FOR AIR FLOW AS FOLLOWS:
 TOP - DO NOT RESTRICT IN ANY WAY. SURFACE HOODS - (1829 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:
 TOP - DO NOT RESTRICT IN ANY WAY. SURFACE HOODS - (1829 MM) 6 FT TO OUTSIDE EDGE OF HOODS.
 SIDES - (1829 MM) 6 FT TO OUTSIDE EDGE OF HOODS.
 CENTER OF GRAVITY SHOWN IS FOR ALUMINUM FIN COILS. SEE INSTALLATION INSTRUCTIONS FOR ALL OTHER VALUES.
 4. INSTALLED IN THE ENTERING FLUID NOZZLE.



UNIT	TOTAL OPERATING TOTAL OPERATING WEIGHT - AL FIN WEIGHT - CU FIN	
	LBS	KG
30GXN/R080	6313	2863
30GXN/R090, 220B	6333	2872
	7008	3178