Product Catalog

Air-Cooled Scroll Chillers
Model CGAM — Made in USA
20 to 130 Nominal Tons (50 Hz and 60 Hz)

Model #: CGAM 030F 2P02 AXD2 A1A1 A1AX XA1C 1AXX XXXX XAXA 3A1D 1XXL X
Serial #: U16F55939

Year: 2016
Ton: 30 Tons

Shipping Weight: 2,846 lbs.
Operating Weight: 2,879 lbs.

L: 12' 6" W: 4' 3" H: 7' 1"

June 2015

CG-PRC017J-EN

TRANE

CGAM 030F 2P02 AXD2 A1A1 A1AX XA1C 1AXX XXXX XAXA 3A1D 1XXL X

Model Number Descriptions

Digits 1-4— Chiller Model

CGAM= Air-Cooled Scroll Packaged Chiller

Digits 5-7— Unit Nominal Ton

020 = 20 Tons
026 = 26 Tons
030 = 30 Tons
035 = 35 Tons
040 = 40 Tons
052 = 52 Tons
060 = 60 Tons
070 = 70 Tons
080 = 80 Tons
090 = 90 Tons
100 = 100 Tons
110 = 110 Tons
120 = 120 Tons
130 = 130 Tons

Digit 8— Unit Voltage

A = 208 Volt 60 Hz 3 Phase
B = 230 Volt 60 Hz 3 Phase
D = 380 Volt 60 Hz 3 Phase
E = 400 Volt 50 Hz 3 Phase
F = 460 Volt 60 Hz 3 Phase
G = 575 Volt 60 Hz 3 Phase

Digit 9— Manufacturing Plant

2 = Pueblo, USA

Digits 10-11— Design Sequence

** = Factory/ABU Assigned

Digit 12— Unit Type

2 = High Efficiency
3 = Extra Efficiency

Digit 13— Agency Listing

X = No Agency Listing
A = UL Listed to U.S. and Canadian Safety Standard

Digit 14— Pressure Vessel Code

X = No Pressure Vessel Code

Digit 15— Unit Application

B = High Ambient (32-125°F/0-52°C)
D = Wide Ambient (0-125°F/-18-52°C)
J = Extreme Low Ambient — down to -20°F (-28.9°C)

Digit 16— Refrigerant Isolation Valves

2 = Refrigerant Isolation Valves (Discharge Valve)

Digit 17— Seismically Rated

A = Not Seismically Rated Unit
B = IBC Seismically Rated Unit
C = OSHPD Seismically Rated Unit

Digit 18— Freeze Protection (Factor-Installed Only)

X = Without Freeze Protection
1 = With Freeze Protection (External T-Stat Control)

Digit 19— Insulation

A = Factory Insulation - All Cold Parts
B = Insulation for High Humidity/ Low Evap Temp

Digit 20— Factory Charge

1 = Full Factory Refrigerant Charge (HFC R-410A)
2 = Nitrogen Charge

Digit 21— Evaporator Application

A = Standard Cooling (42 to 65°F/5.5 to 18°C)
B = Low Temperature Process (10 to 42°F/-12.2 to 5.5°C)
C = Ice-Making - Hardwired Interface (20 to 65°F/-7 to 18°C)
D = Low Leaving Water (below 10°F/-12.2°C)

Digit 22— Water Connections

1 = Grooved Pipe Connection

Digit 23— Condenser Fin Material

A = Lanced Aluminum Fins
C = Non-Lanced Copper Fins
D = Lanced Aluminum Fins w/ CompleteCoat™
H = Microchannel Coils
J = Microchannel Coils w/ CompleteCoat

Digit 24— Condenser Heat Recovery

X = No Heat Recovery
1 = Partial Heat Recovery with Fan Control

Digit 25— Not Used

X

Digit 26— Starter Type

A = Across the Line Starter/ Direct on Line

Digit 27— Incoming Power Line Connection

1 = Single Point Power Connection

Digit 28— Power Line Connection Type

A = Terminal Block
C = Circuit Breaker
D = Circuit Breaker with High Fault Rated Control Panel

Digit 29— Enclosure Type

1 = Water Tight (per UL 1995 Standard)

Digit 30— Unit Operator Interface

A = Dyna-View/English

Digit 31— Remote Interface (Digital Comm)

X = No Remote Digital Communication
2 = LonTalk®/Tracer Summit Interface
3 = Time of Day Scheduling
4 = BACNet® Interface

Digit 32— External Chilled/Hot Water and Current Demand Limit Setpoint

X = No External Chilled Water Setpoint
A = External Chilled Water and Demand Limit Setpoint 4-20mA
B = External Chilled Water and Demand Limit Setpoint 2-10Vdc

Digit 33— Percent Capacity

X = Without % Capacity
1 = With % Capacity

Digit 34— Programmable Relays

X = No Programmable Relays
A = Programmable Relays

Digit 35— Pump Type

X = No Pumps and No Contactors
8 = Dual High Head Pump

Digit 36— Pump Flow Control

X = No Pump Control
B = Pump Flow Controlled by Variable Speed Drive

Digit 37— Buffer Tank

X = No Buffer Tank
1 = With Buffer Tank

Digit 38— Short Circuit Rating

X = No Short Circuit Rating
A = Default A Short Circuit Rating
B = High A Short Circuit Rating

Digit 39— Installation Accessories

X = No Installation Accessories
1 = Elastomeric Isolators
3 = Seismically Rated Isolators

Digit 40— Water Strainer

A = With Water Strainer Factory Installed

Digit 41— Sound Attenuator Package

3 = Super Quiet
5 = Comprehensive Acoustic Package

Digit 42— Appearance Options

X = No Appearance Options
A = Architectural Louvered Panels
B = Half Louvers

Digit 43— Exterior Finish

1 = Standard Paint

Digit 44— Label, Literature Language

B = Spanish
D = English
E = French and English

Digit 45— Phase Reversal Protection

1 = Phase Reversal Protection

Digit 46— Shipping Package

X = No Skid (Standard)
A = Unit Containerization Package

Digit 47— Performance Test Options

X = No Performance Test
2 = 1 Point Test with Report
3 = Witness Test with Report

Digit 48— Flow Switch Set Point

C = Flow Switch Set Point 15
F = Flow Switch Set Point 35
H = Flow Switch Set Point 45
L = Flow Switch Set Point 60

Digit 49— Not Used

X

Digit 50— Specials

X = None
S = Special

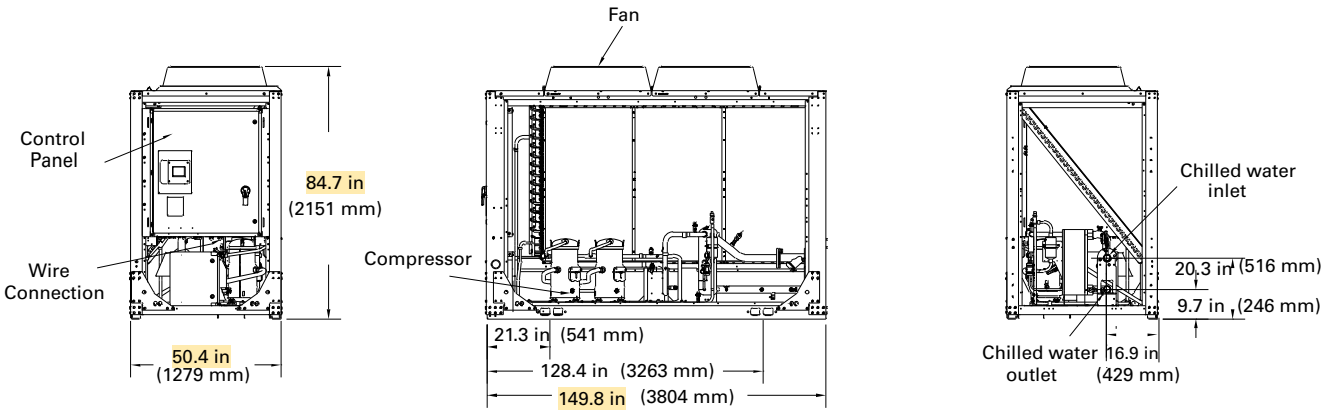
Note: *If a digit is not defined it may be held for future use.*

General Data

Table 1. General data - 60 Hz - high efficiency - IP

Size		20	26	30	35	40	52	60	70	80	90	100	110	120	130
Compressor															
Number	#	2	2	2	2	4	4	4	4	4	4	4	4	4	6
Tonnage/ckt[a]		10+10	13+13	15+15	15+20	10+10	13+13	15+15	15+20	20+20	20+25	25+25	25+30	30+30	20+20 +25
Evaporator															
Water storage	(gal)	1.4	2.2	2.2	3.2	2.4	4.1	5.0	7.5	7.0	9.0	10.3	11.5	11.5	12.3
Min. flow	(gpm)	30	38	42	50	57	74	84	100	115	129	145	157	170	184
Max. flow	(gpm)	69	89	100	117	136	176	201	238	275	307	346	375	407	440
Water connection	(in)	2	2.5	2.5	2.5	3	3	3	3	4	4	4	4	4	4
Condenser															
Round Tube and Plate Fin Coils															
Quantity of coils	#	1	1	1	1	2	2	2	2	4	4	4	4	4	4
Coil length	(in)	91	91	127	127	91	91	127	127	121	121	144	144	144	180
Coil height	(in)	68	68	68	68	68	68	68	68	42	42	42	42	42	42
Number of rows	#	2	2	2	2	2	2	2	2	3	3	3	3	3	3
Fins per foot	(fpf)	192	192	192	192	192	192	192	192	192	192	192	192	192	192
Microchannel Coils															
Quantity of coils	#	1	1	1	1	2	2	2	2	8	8	8	8	8	8
Coil length	(in)	91	91	127	127	91	91	127	127	68+46	68+46	68+68	68+68	68+68	68+ 104
Coil height[b]	(in)	42+10	42+10	42+10	42+10	42+10	42+10	42+10	42+10	34+7	34+7	34+7	34+7	34+7	34+7
Tube width	(in)	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Fan															
Quantity	#	2	2	3	3	4	4	6	6	6	6	8	8	8	10
Diameter	(in)	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8
Airflow per fan	(cfm)	9413	9420	9168	9173	9413	9420	9168	9173	9470	9472	9094	9096	9098	9094
Power per motor	(HP)	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Motor RPM	(rpm)	840	840	840	840	840	840	840	840	840	840	840	840	840	840
Tip speed	(ft/min)	6333	6333	6333	6333	6333	6333	6333	6333	6333	6333	6333	6333	6333	6333
General Unit															
Refrig circuits	#	1	1	1	1	2	2	2	2	2	2	2	2	2	2
Capacity steps	%	50-100	50-100	50-100	43-100	25-50-75-100	25-50-75-100	25-50-75-100	21-43-71-100	25-50-75-100	22-44-72-100	25-50-75-100	23-45-73-100	25-50-75-100	15-31-46-62-81-100
Min ambient - wide	(°F)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min ambient - high	(°F)	32	32	32	32	32	32	32	32	32	32	32	32	32	32
Min ambient - extreme low	(°F)	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20	-20
Round Tube and Plate Fin Coils															
Refrig charge/ckt[a]	(lbs)	32	34	44	48	32	32	44	48	74	78	90	86	86	112
Oil charge/ckt[a]	(gal)	1.7	1.7	1.9	3.5	1.7	1.7	1.9	3.5	3.5	3.5	3.5	3.7	3.8	5.8
Microchannel Coils															
Refrig charge/ckt [a]	(lbs)	18	19.5	25	27.5	18	18	25	27.5	37	39	45	43	43	56
Oil charge/ckt[a]	(gal)	1.4	1.4	1.6	2.9	1.4	1.4	1.6	2.9	2.9	2.9	2.9	3.0	3.1	5.4

Figure 6. CGAM 30 and 35 ton — no options



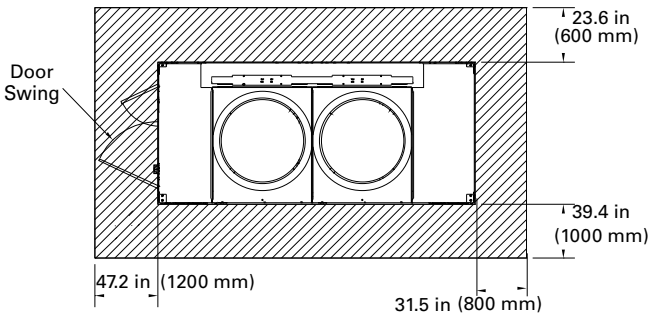
The number of fans shown does not represent the number of fans installed.

Water connections are 1.6 in (40 mm) from unit end.

Figure 7. CGAM 30 and 35 ton - service clearances and mounting locations

Service Clearance

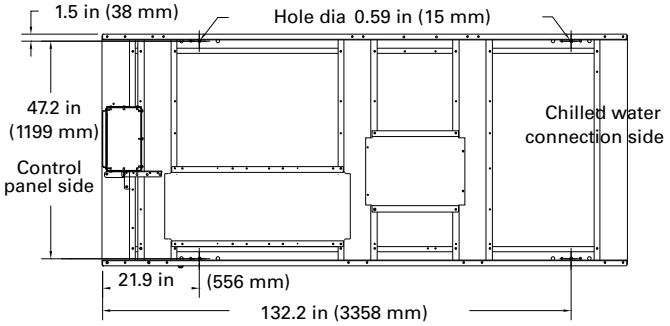
The number of fans shown does not represent the number of fans installed.



More clearance may be needed for airflow depending on the installation.

Mounting Locations

Distance from edge to middle of mounting hole



Total of four mounting locations.