Product Catalog

Model #: CGAM026F2F02AXD2A1A1A1AXXA101A4XXX8BXB1A3A1DXXXXX

Serial #: U11M26972

2011

26 Ton

Air-Cooled Scroll Chillers

Model CGAM - Made in USA

20-130 Nominal Tons (50 Hz and 60 Hz)

L: 9' 7"

W: 4' 3"

H: 7' 1"

Shipping Weight: 2,028 lbs

June 2011

CG-PRC017-EN

Model Number Descriptions

Digit 1-4 — Chiller Model

CGAM = Air-Cooled Scroll Packaged Chiller

Digit 5-7 — Unit Nominal Tonnage

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

Digit 10-11 — Design Sequence

A-Z = Factory/ABU Assigned

Digit 12 — Unit Type

2 = High Efficiency/Performance

Digit 13 — Agency Listing

X = No Agency Listing
A = UL Listed to US and Canadian Safety Standard

Digit 14 — Pressure Vessel Code

X = No Pressure Vessel Code

Digit 15 — Unit Application

B = High Ambient (32 to 125°F/0 to 52°C)
D = Wide Ambient (0 to 125°F/-18 to 52°C)

Digit 16 — Refrigerant Isolation Valves

2 = Refrigerant Isolation Valves (Discharge Valve)

Digit 17 — Seismically Rated Unit

A = Not Seismically Rated Unit
B = Seismically Rated Unit

Digit 18 — Freeze Protection (Factory-Installed Only)

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-410A)

Digit 21 — Evaporator Application

A = Standard Cooling (42 to 65°F/5.5 to 18°C)
B = Low Temperature Processing (lower than 42°F/5.5°C)
C = Ice-Making - hardwired interface (20 to 65°F/-7 to 18°C)

Digit 22 — Water Connection (Evap)

1 = Grooved Pipe Connection

Digit 23 — Condenser Fin Material

A = Lanced Aluminum Fins
D = Lanced Aluminum Fins w/ CompleteCoat™

Digit 24 — Condenser Heat Recovery

X = No Heat Recovery
1 = Partial Heat Recovery w/ Fan Control

Digit 25

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 Conn. For Incoming Lines
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
C = Dyna-View/Spanish-Mexico
D = Dyna-View/French
K = Dyna-View/Portuguese-Brazil
M = Dyna-View/Thai
N = Dyna-View/Simplified Chinese
P = Dyna-View/Traditional Chinese

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 — Ext. Chilled/Hot Water and Curr. Demand Limit Setpoint

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

Digit 33 —% 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

B = Pump Flow Controlled by Variable Speed Drive

Digit 37 —

X =

Digit 38 — 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

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 and Literature Language

B = Spanish
D = English
E = French

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 1 Point Test with Report

Digit 48 — Flow Switch Setpoint

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 —

X

Digit 50 — Specials

X = None
S = Special

Notes:

1. If a digit is not defined it may be held for future use.

General Data

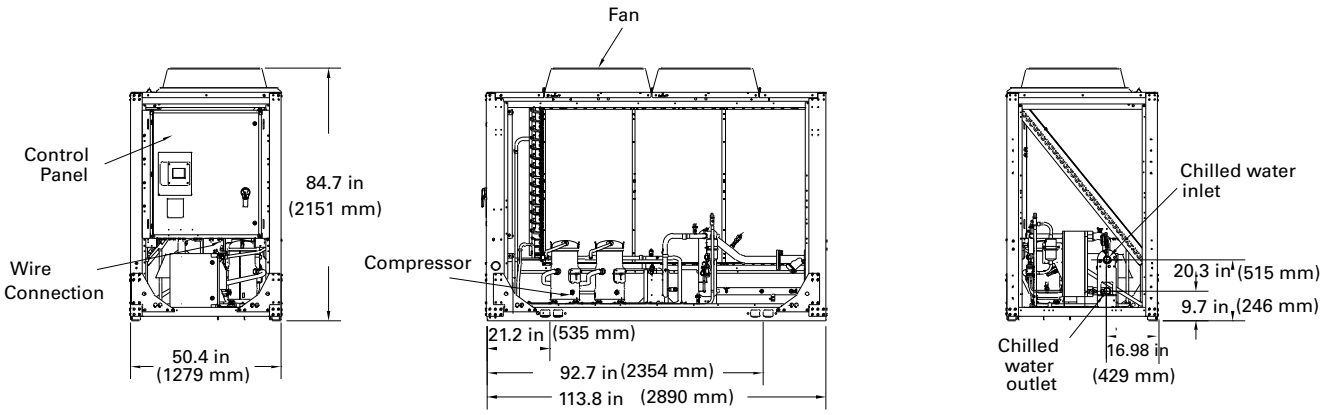
Table 1. General Data - 60 Hz - IP

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/circuit[1]		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															
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
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	(kW)	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	1.2
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
Refrig charge/circuit [1]	(lbs)	32	34	48	48	32	32	50.5	48	74	78	90	91.5	86	112
Oil charge/circuit[1]	(gal)	1.7	1.7	3.5	3.5	1.7	1.7	3.5	3.5	3.5	3.5	3.5	3.7	3.8	5.8
Min ambient - wide	(°F)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min ambient - high	(°F)	n/a										32	32	32	32
Pump Package															
Avail head pressure[2]	(ft H2O)	78.2	77.7	71.1	67.6	67.1	58.6	76.7	63.5	82.0	78.1	69.0	61.9	71.3	62.2
Power	(HP)	5.0	5.0	5.0	5.0	5.0	5.0	7.6	7.6	10.2	10.2	10.2	10.2	15.2	15.2
Expansion tank volume	(gal)	5	5	5	5	5	5	5	5	6	6	6	6	6	6
Partial Heat Recovery															
Water storage/circuit[1]	(gal)	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.03	0.03	0.04	0.04	0.04	0.06	0.06
Max flow	(gpm)	39	39	39	39	78	78	78	78	127	127	127	127	127	127
Water connection	(in)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	2.5	2.5	2.5	2.5	2.5	2.5

1. Data shown for circuit one only. The second circuits always matches.
2. Pump available head pressure is based on: 44/54°F evaporator with water, .0001 hr-ft²-°F/Btu, 95°F ambient and 0 ft elevation.

Dimensions

Figure 4. CGAM 20 and 26 ton



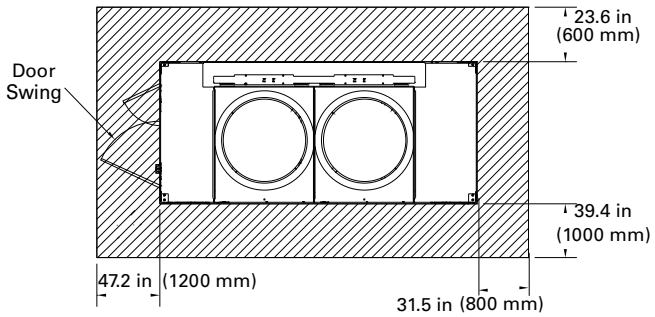
The number of fans shown does not represent the number of fans installed.

Water connections are 1.7 in (44 mm) from the end.

Figure 5. CGAM 20 and 26 ton - service clearances and mounting locations

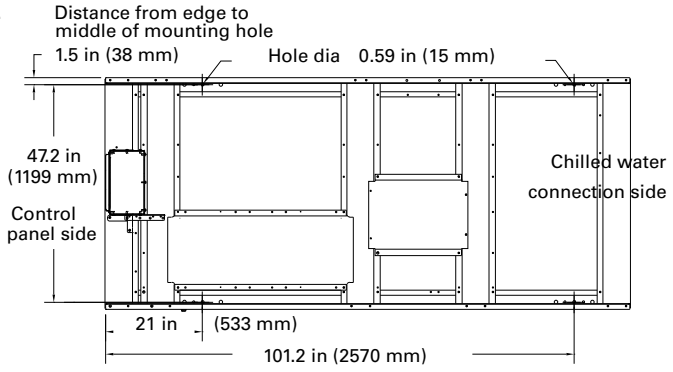
Service Clearance

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



Total of four mounting locations.

Weights

Table 15. Weights - 60 Hz

Tons	Without Pump				With Pump				Partial Heat Recovery - add				Louvered Panels	
	Shipping		Operating		Shipping		Operating		Shipping		Operating		Additional	
	lbs	kg	lbs	kg	lbs	kg	lbs	kg	lbs	kg	lbs	kg	lbs	kg
20	1971	894	2033	922	2585	1173	2674	1213	37	17	41	19	42	19
26	2028	920	2096	951	2642	1198	2736	1241	38	17	43	20	42	19
30	2535	1150	2603	1181	3241	1470	3335	1513	46	21	50	23	55	25
35	2569	1165	2645	1200	3275	1486	3578	1623	47	21	52	24	55	25
40	3514	1594	3584	1626	4165	1889	4262	1933	90	41	97	44	70	32
52	3603	1634	3686	1672	4255	1930	4364	1980	94	43	102	46	70	32
60	4585	2080	4675	2121	5361	2432	5478	2485	97	44	106	48	81	37
70	4657	2112	4766	2162	5433	2464	5569	2526	100	45	110	50	81	37
80	5382	2441	5488	2489	6365	2887	6535	2964	162	73	198	90	90	41
90	5631	2554	5753	2610	6615	3001	6800	3085	169	77	208	94	90	41
100	6274	2846	6407	2906	7257	3292	7454	3381	169	77	208	94	103	47
110	6351	2881	6493	2945	7334	3327	7540	3420	169	77	208	94	103	47
120	6399	2903	6541	2967	7735	3509	7940	3602	178	81	221	100	103	47
130	7455	3382	7604	3449	8839	4009	9051	4106	162	73	205	93	112	51

1. Weights based on aluminum fins.
2. Base unit weights are shown above on the left side for units without a pump package and units with a pump package. The partial heat recovery and louver panel option weights are in addition to the base unit weights.
3. All weights ±3%.

Table 16. Weights - 50 Hz

Tons	Base Unit				Partial Heat Recovery - add				Louvered Panels	
	Shipping Weight		Operating Weight		Shipping Weight		Operating Weight		Additional	
	lbs	kg	lbs	kg	lbs	kg	lbs	kg	lbs	kg
20	1897	860	1959	889	37	17	41	19	42	19
26	1953	886	2021	917	37	17	41	19	42	19
30	2436	1105	2504	1136	46	21	50	23	55	25
35	2470	1120	2546	1155	46	21	50	23	55	25
40	3364	1526	3435	1558	90	41	97	44	70	32
52	3454	1567	3537	1604	90	41	97	44	70	32
60	4387	1990	4477	2031	97	44	106	48	81	37
70	4459	2023	4568	2072	97	44	106	48	81	37
80	5131	2327	5237	2376	162	73	198	90	90	41
90	5381	2441	5503	2496	162	73	198	90	90	41
100	6023	2732	6156	2792	162	73	198	90	103	47
110	6100	2767	6242	2831	169	77	208	94	103	47
120	6149	2789	6290	2853	169	77	208	94	103	47

1. Weights based on aluminum fins.
2. Base unit weights are shown above on the left side. The partial heat recovery and louver panel option weights are in addition to the base unit weights.
3. All weights ±3%.