

Model #: CGAM 130F 2H02 AXB2 A1A1 A1AX XA1A 1A3X XXXX XAXA 3X1D XXXL XX
Serial #: U12J31895



Product Catalog

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

L: 16' 10"
W: 7' 6"
H: 7' 9"

Operating Weight: 7,898
Shipping Weight: 7,753





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 = IBC Seismically Rated Unit
 C = OSHPD 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)
 2 = Nitrogen Charge

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
 C = Non-Lanced Copper 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



Model Number Descriptions

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

- X = No Pump 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
- 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 – 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.

Dimensions

Figure 16. **CGAM 130 ton**

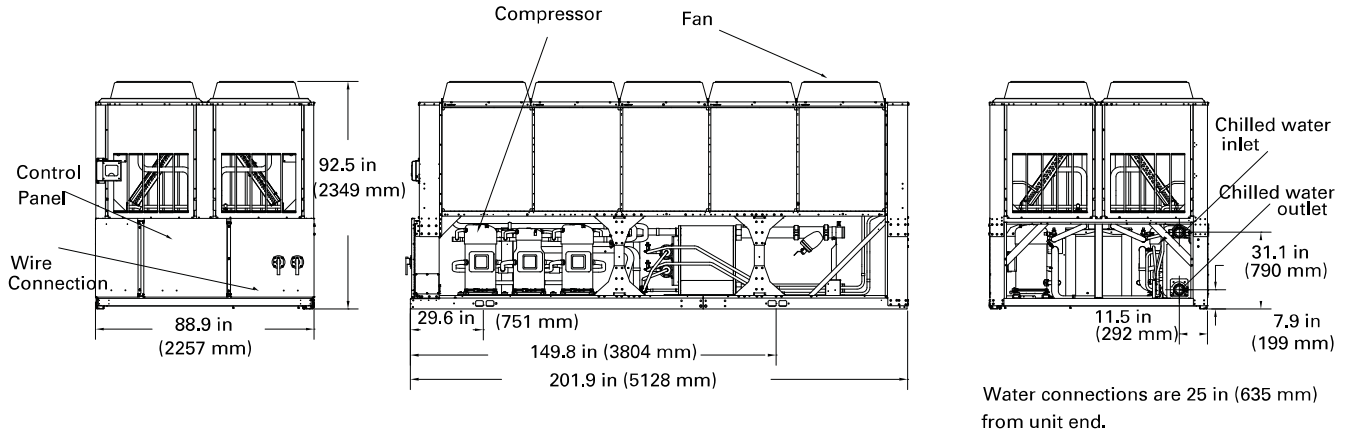
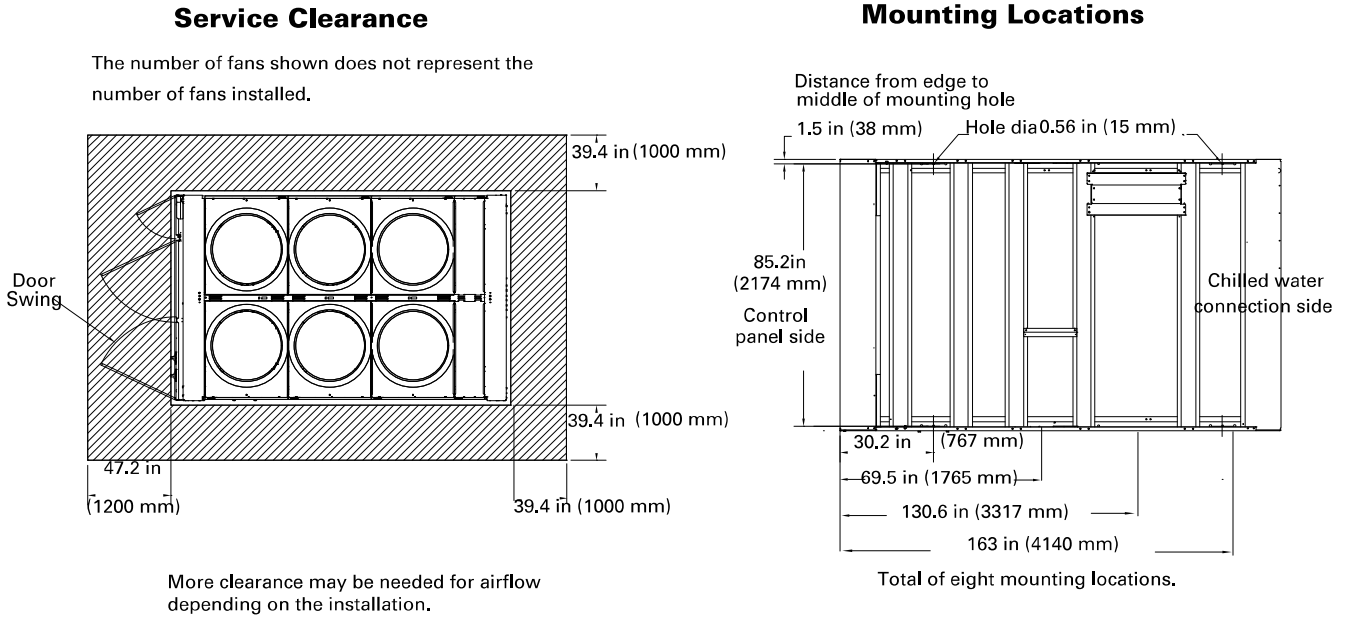


Figure 17. CGAM 130 ton- service clearances and mounting locations



Weights

Weights

Table 15. Weights - 60 Hz

Tons	Without Pump				With Pump				Partial Heat Recovery - add				Copper - add	
	Shipping		Operating		Shipping		Operating		Shipping		Operating		Additional	
	lbs	kg	lbs	kg	lbs	kg	lbs	kg	lbs	kg	lbs	kg	lbs	kg
20	2185	991	2207	1002	2726	1236	2814	1277	39	18	24	11	258	117
26	2249	1020	2278	1034	2790	1265	2891	1311	39	8	31	14	258	117
30	2846	1291	2879	1306	3388	1537	3496	1586	47	21	36	16	360	163
35	2878	1305	2919	1325	3420	1551	3545	1608	47	21	44	20	360	163
40	3666	1663	3696	1677	4285	1944	4382	1988	94	43	34	15	515	234
52	3761	1706	3805	1726	4379	1986	4505	2044	94	43	49	22	515	234
60	4978	2258	5032	2283	5814	2637	5984	2715	111	50	59	27	719	326
70	5045	2289	5119	2323	5881	2668	6092	2764	111	50	80	36	719	326
80	5607	2543	5691	2582	6486	2942	6788	3080	170	77	90	41	1270	576
90	5859	2658	5959	2704	6738	3056	7073	3209	170	77	109	49	1270	576
100	6646	3015	6757	3066	7549	3424	7907	3587	178	81	120	54	1511	686
110	6724	3050	6844	3105	7627	3460	8003	3631	178	81	129	59	1511	686
120	6762	3067	6882	3122	8018	3637	8393	3808	178	81	131	60	1511	686
130	7753	3517	7898	3583	9006	4085	9427	4277	178	81	156	71	1889	857

1. Weights based on aluminum fins, refrigerant charge, isolators, circuit breaker and louvers.

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 copper weights are in addition to the base unit weights.

Table 16. Weights - 50 Hz

Tons	Base Unit				Partial Heat Recovery - add				Copper	
	Shipping Weight		Operating Weight		Shipping Weight		Operating Weight		Additional	
	lbs	kg	lbs	kg	lbs	kg	lbs	kg	lbs	kg
20	2187	992	2209	1002	39	18	24	11	258	117
26	2249	1020	2278	1034	39	18	31	14	258	117
30	2845	1291	2879	1306	47	21	36	16	360	163
35	2877	1305	2919	1325	47	21	44	20	360	163
40	3665	1663	3696	1677	94	43	34	15	515	234
52	3760	1706	3805	1726	94	43	48	22	515	234
60	4977	2258	5032	2283	111	50	59	27	719	326
70	5044	2289	5119	2323	111	50	79	36	719	326
80	5606	2543	5691	2582	170	77	90	41	1270	576
90	5857	2657	5958	2703	170	77	107	49	1270	576
100	6628	3007	6741	3059	178	81	118	54	1511	686
110	6711	3045	6833	3100	178	81	129	59	1511	686
120	6756	3065	6878	3121	178	81	129	59	1511	686

1. Weights based on aluminum fins, refrigerant charge, isolators, circuit breaker and louvers.

2. The partial heat recovery and copper weights are in addition to the base unit weights.



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	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	81	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.