



Small Chillers

Features and main characteristics



The 10 and 15-ton air-cooled Cold Generator™ chillers, with Trane direct drive hermetic scroll compressors, has outstanding standard features and additional benefits that make selection, installation, and servicing easy.

Flexibility

Footprint

Central to the design of any project is the operating envelope of the air-cooled packaged chiller. With this in mind, Trane builds the chillers to make the most efficient use of the available installation space. The Trane CGA model chillers are extremely compact. They have the lightest weight, the smallest footprint, and the lowest silhouette of any chiller in the industry.

Less Weight

These lightweight models afford less stress on building supports and greater handling ease.

Installation

Installation time and effort are reduced when dealing with a significantly smaller and lighter unit. In addition, having electrical and water connections on the same side of the unit and a single-point main power connection serves to make installation easier. The unit arrives at the jobsite fully assembled, tested, charged and ready to provide chilled water.



Trane's 20-60 ton chillers offer the same time-tested and proven control technology that is applied to the IntelliPak™ Air Cooled rooftops.

Superior control makes the IntelliPak a truly advanced chiller.

Other Standard Features

- Trane 3-D™ Scroll compressors
- Advanced motor protection
- 300 psi waterside evaporator Evaporator insulation (¾-inch Armaflex II or equivalent)
- Evaporator heat tape (thermostat controlled)
- Condenser coil guards
- Operation down to 30°F without additional wind baffles or head pressure control
- Loss of flow protection
- Packed stock availability
- Control Power Transformer
- Low ambient lockout
- Plain English (Spanish/French) Human Interface display
- Smart Lead/Lag operation
- Integrated chilled solution pump control
- Selectable process or comfort control algorithm
- External auto/stop
- Electronic low ambient damper control integrated into UCM

Enhanced Controls

IntelliPak™ Chiller Unit Control Module (UCM)

Microprocessor Control

The brain of the 20 through 60 ton air-cooled chiller is its Unit Control Module (UCM). The UCM is an innovative, modular microprocessor control design, which coordinates the actions of the chiller in an efficient manner, providing stand-alone operation of the unit.

Access to the unit controls is via a Human Interface (HI) Panel, a standard component of the IntelliPak chiller. This panel provides a high degree of control. Superior monitoring capability and unmatched diagnostic information is provided through a 2 line 40 character per line, English language display. There are no diagnostic "codes" requiring a translation key for interpretation. All system status information and control adjustments can be made from the onboard Human Interface Panel.



Remote Human Interface (RHI) — The optional Remote Human Interface (RHI) performs the same functions as the Human Interface, with the exception of the service mode. The RHI can be used with up to 4 air-cooled chillers from a single panel.

LIQUID CHILLERS

10 - 60 TR



These are products offering easy outdoor installation thanks to their small size. They have all of the latest TRANE technological advances : electronic control, low-speed fans, etc. And these are technologies which ensure their reliability, operating silence, compactness and respect for the environment.

FOR WHOM? FOR WHAT?

This range of products is ideal for air-conditioning applications of a residential type (e.g. villas and apartments) or for buildings within the service sector (banks, offices, hotels ...) containing more than 3 or 4 rooms requiring air-conditioning.

They can be used together with indoor units such as console/ceiling, cassette or fan-coil installations.

These products are also widely used for process applications.



TRANE'S ADVICE

This product is to be recommended for the air-conditioning of a building where :

- there are more than three or four zones*
- only one outdoor installation is allowed*
- a very low sound level is required.*

LIGHT COMMERCIAL RANGE



CGA

R22 10 - 60 TR

Air-cooled liquid chiller Axial fan



General Data — 10–60 Ton Units

	10 Ton CGA120	15 Ton CGA180	20Ton CGAF-C20	25Ton CGAF-C25	30Ton CGAF-C30	40Ton CGAF-C40	50Ton CGAF-C50	60Ton CGAF-C60
Compressor Data								
Model	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
Quantity	2	2	2	1/1	2	4	2/2	4
Nominal Tons per Compressor	5	7.5	10	10/15	15	10	10/15	15
Evaporator								
Nominal Size (Tons)	10	15	20	25	30	40	50	60
Water Storage Capacity (Gallons) ²	1.4	1.5	11.7	10.7	16.3	13.8	21.0	37.8
Min. Flow Rate (GPM)	12.0	18.0	24	30	36	48	60	72
Max. Flow Rate (GPM)	36.0	54.0	72	90	108	144	180	216
Max EWT At Start-Up — Deg F ³	100	100	108	108	108	108	108	108
Condenser								
Nominal Size (Tons)	10	15	20	25	30	40	50	60
Number of Coils	1	2	1	2	2	2	2	2
Coil Size (ea., Inches) ⁴	28 x 108	28 x 83	61 x 71	45 x 71/35 x 71	56 x 70	56 x 70	57 x 96	57 x 96
Number of Rows	2	2	3	3	3	3	4	4
Subcooler Size (ea., Inches)	4 x 108	4 x 83	10 x 71	14 x 71	9 x 70	9 x 70	9 x 96	9 x 96
Condenser Fans								
Quantity	1	2	2	3	4	4	6	6
Diameter (Inches)	28	26	26	26	26	26	26	26
CFM (Total)	8,120	11,600	15,000	21,650	29,200	29,200	42,300	40,700
Nominal RPM	1100	1100	1140	1140	1140	1140	1140	1140
Tip Speed (Ft/Min)	8060	7490	7750	7750	7750	7750	7750	7750
Motor HP (ea.)	1.0	1/2	1.0	1.0	1.0	1.0	1.0	1.0
Drive Type	Direct	Direct	Direct	Direct	Direct	Direct	Direct	Direct
Minimum Outdoor Air Temperature Permissible For Mechanical Cooling¹								
Standard Ambient Control Unit (°F)	50	50	30	30	30	30	30	30
Standard Ambient w/Hot Gas Bypass (°F)	60	60	40	40	40	40	40	40
Low Ambient Option (°F)	0	0	0	0	0	0	0	0
Low Ambient Control w/Hot Gas Bypass(°F)	15	15	10	10	10	10	10	10
General Unit								
Unload Steps	100-50	100-50	100-50	100-60-40	100-50	100-75-50-25	100-80-60-30	100-75-50-25
No. of Independent Refrig. Circuits	2	2	1	1	1	2	2	2
Refrigerant Charge (lbs. R22/Circuit)	8.25	11.5	40.5	54.0	72.0	38.0	47.0	67.0
Oil Charge (Pints/Circuit)	4.1	7.5	8.0	8.0/14.0	14.0	8.0	8.0/14.0	14.0

*Unloading steps depend upon which compressor is lead compressor.

Notes:

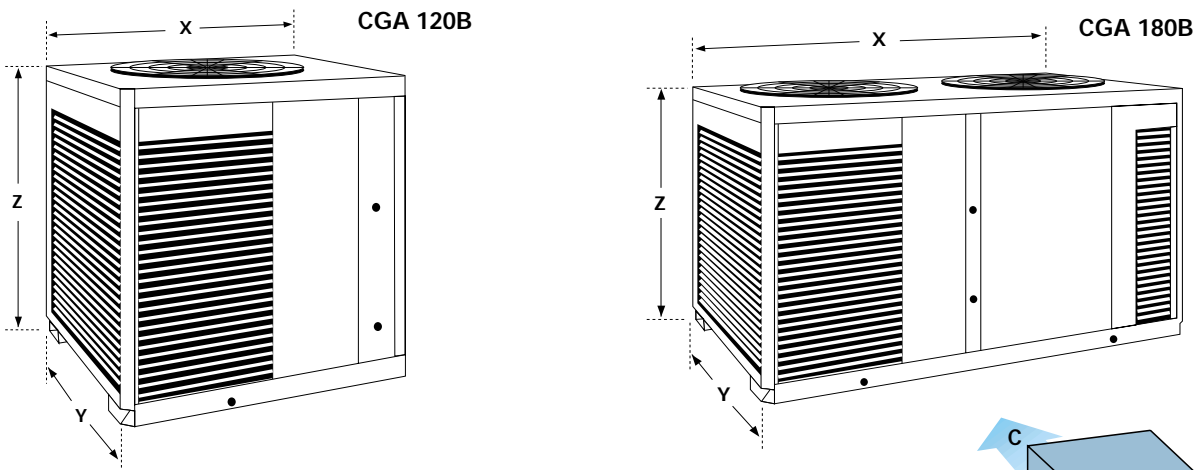
¹ Minimum start-up ambient based on unit at minimum step of unloading and a 5 mph wind across the condenser.

² Includes piping internal to chiller.

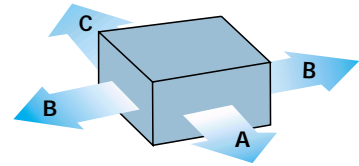
³ At 95° F ambient.

⁴ Does not include subcooling portion of coil.

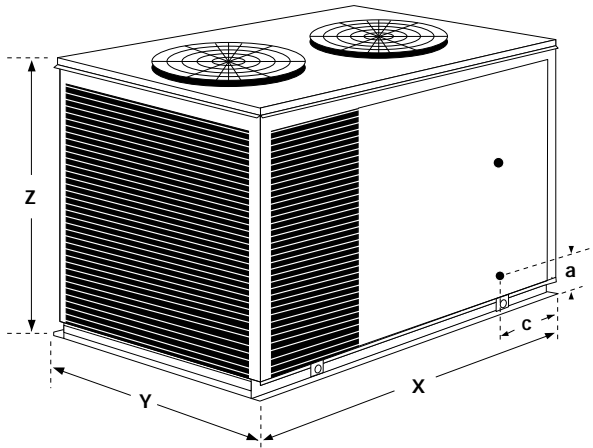
CGA 120 -150



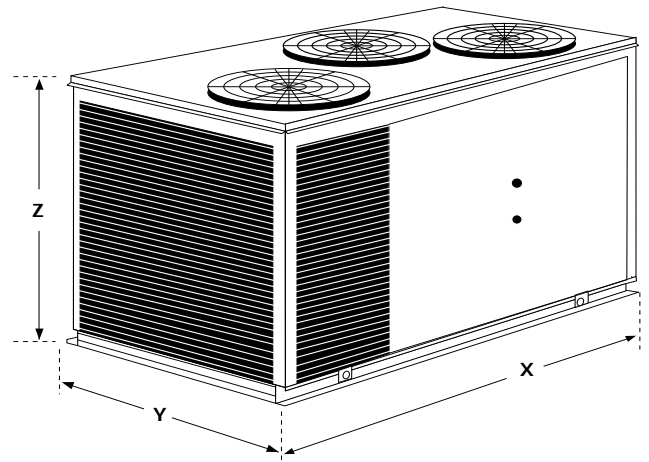
Minimum clearance around the perimeter of the unit is 3 feet.



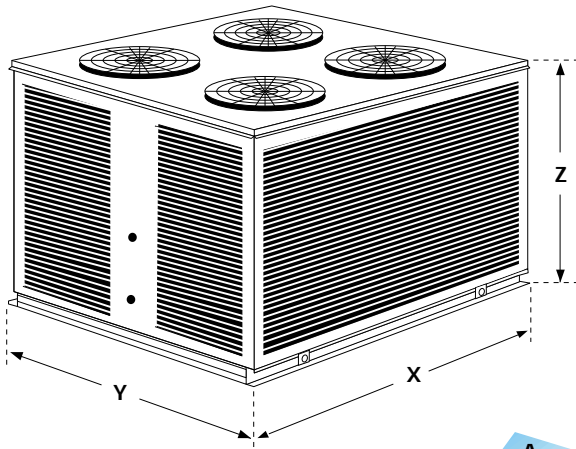
Model and size	CGA 120B	CGA 180B
Width x depth x height (X x Y x Z) (mm)	1300 x 983 x 964	2240 x 983 x 983
Weight (lb)	529	788
Evaporator Connection Type	NPTF	NPTF
Water Connection diameter (in)	1½	2



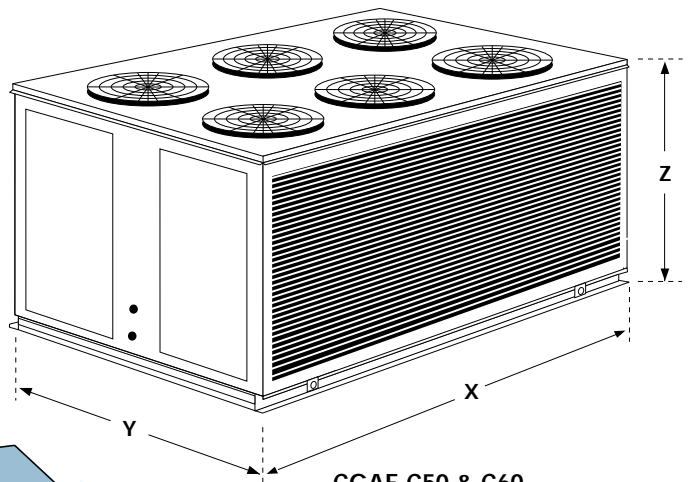
CGAF-C20



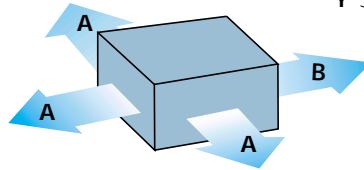
CGAF-C25



CGAF-C30 & C40



CGAF-C50 & C60



Model and size		CGAF	C20	C25	C30	C40	C50	C60
Dimensions	Length (X)	(mm)	2242	2242	2242	2242	2892	2892
	Width (Y)	(mm)	1527	1527	2245	2245	2245	2245
	Height (Z)	(mm)	1588	1727	1854	1854	1854	1854
	Clearance (A)	(mm)	2438	2438	2438	2438	2438	2438
	Clearance (B)	(mm)	1067	1067	1067	1067	1067	1067
Operating weight		(lbs)	2308	2563	3708	3944	4738	6474
Evaporator	Connection type		NPS Female				Grooved Pipe	
	Water connection diameter	(Inch)	2	2	2½	2½	3	4