TRANE®

Air-Cooled Scroll Chillers and Heat Pumps

Model CGA 040 to 115
Cooling capacity 14 - 40 kW

Model CXA 040 to 115
Cooling capacity 14 - 38 kW
Heating capacity 16 - 43 kW

Ingersoll Rand®

Air-Cooled Scroll Chillers and Heat Pumps

Air/water chillers and heat pumps with axial fans and hermetic scroll compressors

Range description

- **CGA** chillers with/without hydraulic module
- **CGA-H** chillers with hydraulic module and built in water tank
- **CXA** heat pumps with/without hydraulic module
- **CXA-H** heat pumps with hydraulic module and built in water tank

Unit description

- Scroll compressor
- Fans propeller type
- Air side heat exchanger with seamless copper tubes and aluminium fins
- Water side heat exchanger steel brazed plate fitted with differential pressure switch and antifreeze protection electric heater
- Microprocessor-based controller to manage unit on/off mode, operating mode setting, parameters setting, and error code display
- Low ambient condensing pressure control with variable fan speed modulation
- Electrical panel with main switch
- Casing and panels in galvanised and painted steel

Options

- Low ambient temperature kit (down to -10°C)
- Low water temperature kit (down to -12°C)
- Compressors sound jackets
- Soft - starter
- Control panel electric heater with thermostat
- Phase failure protection relay
- Epoxy coated condensing coils

Accessories

- Remote control panel
- Communication card RS485
- Flow switch
- Automatic water filling
- Water strainer
- Water gauges
- Rubber anti vibration mounts

Advantages

CGA/CXA units are designed in compliance with the new directive ErP 2009/125/EC (in force in the European Union from 26th of September 2015), relating to all products intended for heating and domestic hot water production.

ErP2015 compliant

DIGITAL DEFROST is a digital self-adaptive defrosting system able to intervene only in case of a consistent thickness formation of ice on the coils' fins. More specifically, the system reduces the number of defrosting cycles and activates the defrost function whenever necessary.

DIGITAL DEFROST

The DYNAMIC LOGIC CONTROL manages the differential of the inlet water temperature in accordance to the speed variation. Thanks to the DLC the number of the compressors' start decreases ensuring economic and energetic savings.

dLC DYNAMIC LOGIC CONTROL

The function DYNAMIC SET POINT allows to change the set point simultaneously to always achieve the conditions of best comfort and, above all, the maximum energy saving.

DSP DYNAMIC SET POINT

Operating range		CGA	CXA cooling	CXA heating
Operating outdoor air temperature range (min./max.)	(°C)	5 (-10) / 43	5 / 43	-5 (-10) / 20
Leaving water temperature range (min./max.)	(°C)	-6 (-12) / 18	-6 (-12) / 18	26 / 55
Power supply	(V/Ph/Hz)		400/3/50	

* Temperatures within parentheses () can be achieved with low ambient or low water temperature options.

Chiller Version

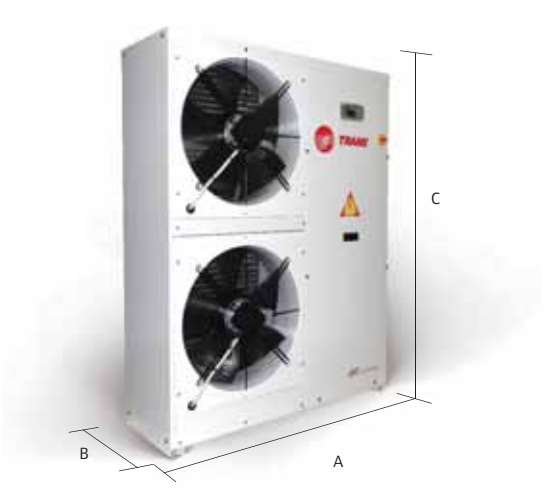
General data

CGA	Unit size	040	060	070	080	105	115
Cooling (1)							
Cooling capacity	kW	14.60	20.90	23.70	29.00	36.60	40.40
Total power input	kW	4.80	7.10	8.60	9.80	12.10	14.00
EER		3.00	2.93	2.77	2.96	3.03	2.90
ESEER		3.43	3.25	3.11	3.27	3.38	3.19
Water flow	m³/h	2.50	3.58	4.07	4.98	6.28	6.94
Water pressure drop	kPa	48.30	32.90	42.00	19.00	30.30	36.60
Number of refrigerant circuits		1	1	1	1	1	1
Number of compressors		1	1	1	1	1	1
Compressor type				Scroll			
Sound pressure level (2)	dB(A)	50	46	47	48	48	55
Sound pressure level (3)	dB(A)	76	72	73	74	75	81
Hydraulic versions							
External head pressure	kPa	42	103	75	131	93	69
Number of expansion vessels		1	1	1	1	1	1
Water tank volume	l	40	60	60	80	80	80

(1) Outdoor temperature 35°C - chilled water temperature in/out 12/7°C
(2) According to ISO 3744 at 5 m distance from the unit
(3) According to ISO 9614 for Eurovent certified units, or ISO 3744 for non-certified units

Dimensions and weights

CGA	Unit size	040	060	070	080	105	115
A	mm	1125	1465	1465	1671	1671	1671
B	mm	440	560	560	560	560	560
C	mm	1444	1448	1448	1687	1687	1687
Additional height - hydraulic version with water tank	mm	380	380	380	380	380	380
Shipping weight	kg	156	230	238	270	273	281
Additional shipping weight - hydraulic version	+ kg	7	11	11	12	12	12
Additional shipping weight - hydraulic version + water tank	+ kg	37	47	47	67	67	67



Heat Pump Version

General data

CXA	Unit size	040	060	070	080	105	115
Cooling (1)							
Cooling capacity	kW	13.80	19.80	22.50	27.50	34.80	38.40
Total power input	kW	4.85	7.13	8.56	9.79	12.10	14.00
EER		2.85	2.78	2.63	2.81	2.88	2.75
ESEER		3.26	3.09	2.95	3.11	3.22	3.03
Water flow	m³/h	2.37	3.40	3.86	4.73	5.97	6.59
Water pressure drop	kPa	43.50	29.60	37.80	17.10	27.30	32.90
Heating (2)							
Heating capacity	kW	15.80	22.10	25.50	29.80	38.20	43.10
Total power input	kW	5.20	7.30	8.40	9.90	12.60	14.10
COP		3.05	3.03	3.04	3.01	3.03	3.05
Water flow	m³/h	2.76	3.85	4.45	5.19	6.65	7.50
Water pressure drop	kPa	63.30	37.40	53.20	20.20	34.50	43.50
Number of refrigerant circuits		1	1	1	1	1	1
Number of compressors		1	1	1	1	1	1
Compressor type				Scroll			
Sound pressure level (3)	dB(A)	50	46	47	48	48	55
Sound power level (4)	dB(A)	76	72	73	74	75	81
Hydraulic versions							
External head pressure	kPa	42	103	75	131	93	69
Number of expansion vessels		1	1	1	1	1	1
Water tank volume	l	40	60	60	80	80	80

(1) Outdoor temperature 35°C - chilled water temperature in/out 12/7°C
(2) Outdoor temperature 7°C 90% R.H. - hot water temperature in/out 40/45°C
(3) According to ISO 3744 at 5 m distance from the unit
(4) According to ISO 9614 for Eurovent certified units, or ISO 3744 for non-certified units

Dimensions and weights

CXA	Unit size	040	060	070	080	105	115
A	mm	1125	1465	1465	1671	1671	1671
B	mm	440	560	560	560	560	560
C	mm	1444	1448	1448	1687	1687	1687
Additional height - hydraulic version with water tank	mm	380	380	380	380	380	380
Shipping weight	kg	156	230	238	270	273	281
Additional shipping weight - hydraulic version	+ kg	7	11	11	12	12	12
Additional shipping weight - hydraulic version + water tank	+ kg	37	47	47	67	67	67

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