

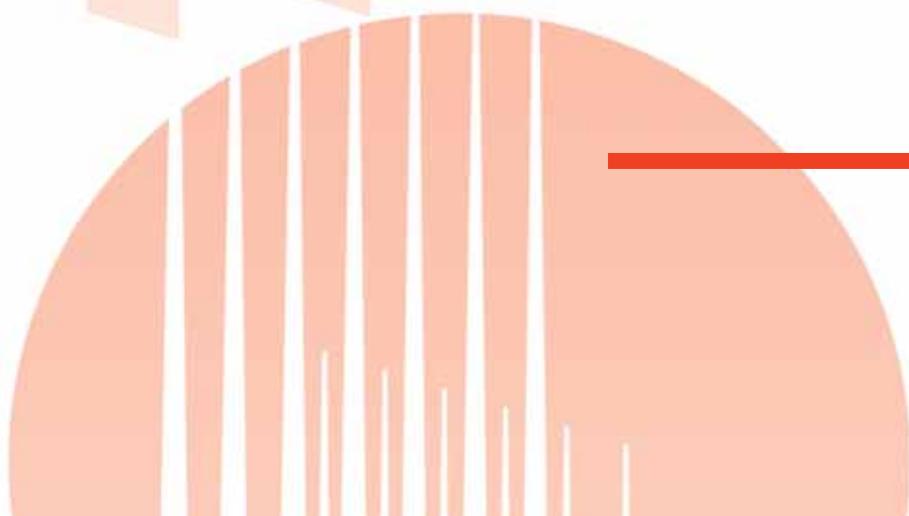


®  
**TRANE**

## CGAP/H

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**Air Cooled Scroll Liquid Chillers**  
Cooling Only 60-210 kW  
50Hz





Our business is a business of providing energy-efficient and environmentally responsible systems that sustain high performance for life...

By doing so, we make it possible for buildings and industrial processes to operate at world-class levels...

Trane systems do more than make chilled water or warm and cool air. Our systems ensure process reliability, energy efficiency, as well as superior indoor air quality.

And these results are realized by carefully looking at how everything works together - before we put anything together...

So whether the challenge is creating sophisticated Integrated Comfort™

Systems for luxury hotels...

enterprise services for high-

performance working environments...

control systems for critical, regulated processes...

Trane has the committed team with the technical know-how and expertise to help your building or your process perform at its utmost ability...

### Customer benefits

- Small footprint that minimizes installation space.
- Manifoldd Compressors for improved part load efficiencies.
- BPHE Evaporators that save refrigerant.
- Wide application flexibility for comfort and process applications to fit the customer's exact requirements.

### Main features

- Multi Stage, Scroll Compressors.
- Manifoldd Hermetic, high efficiency, low vibration, low sound level.
- Full internal protections, including internal and external thermal overloads on compressors.
- Built-in oil level sight glass and oil charging valve.

- External sheet metal parts are galvanized and finished with polyester powder paint RAL 9002
- Water flow switch.
- Factory supplied strainers.
- Coil protection guards (option on CGAH)
- Fully packaged with controls and starters.

### Options

- Coated fin options.
- R22 or R407C Options.



### • Factory-mounted LonTalk® serial link capability [optional]

Allowing you to:

- Modify the chilled water temperature set-point.
  - Start or stop the unit.
  - Monitor water temperature set-point, chiller operation, fans, water pumps, compressor alarms.
  - Trane Tracer Summit™ BMS direct compatibility
- LonTalk® is an open communication protocol used on The Carel controller and Trane MP air system controller



### Microprocessor control module with liquid crystal display operator interface controlling and indicating:

- Leaving and Entering water temperature.
- History of the last 200 defaults.
- Cold or hot water reset.
- On/off scheduling.
- Anti-freeze protection of evaporator, control defrost.
- Remote control: dry contact for general fault, allows remote on-off and remote monitoring of the chiller.



### Let it think for you...

These CGAP/H chillers are controlled by a chiller controller that monitors all operating and security parameters. It also offers programmable features such as scheduled start/stop or water temperature reset, and has remote starts/stop or default signaling capabilities. The 6-key keypad along with the liquid crystal display will allow the user to interact very simply with the system, and to quickly diagnose eventual problems or even better: prevent them. These Trane chillers, have controllers allows you control over your installation with ease and a pleasant peace of mind.



Trane makes buildings work better and creates an optimum working environment while controlling operating costs for light commercial, small lodging, small and medium scale industry vertical market segments. Integrating Factory Engineered System Controls and Trane's air-system technology, allows for a full one stop system solution.

## Application Benefits

### 1) High efficiency and low running noise

a. Multi scroll compressors design achieve high average running efficiency at partial and full load operation.

b. Brazen Plate Heat Exchanger Evaporators:

- Precision heat transfer
- Low overall cost
- Maximum reliability
- Minimum energy consumption
- Environmentally responsible solution

### 2) Independent Operation / Service budget

The Multi-Chiller system is designed for independent cooling demand as well as cater for redundancy.

### 3) Independent Operation / Service budget

Compact in footprint. Easy installation and requires small outdoor space due to it's tall coils, enabling multiple installations as and when occupation demand arises.

### 4) No refrigerant piping around your living space

a. The Chiller system delivers a steady thermal flow of chilled water that is non hazardous and system with minimum cycling of temperature cycling.

Multiple choices of indoor units make the system flexible in all diverse vertical market applications.



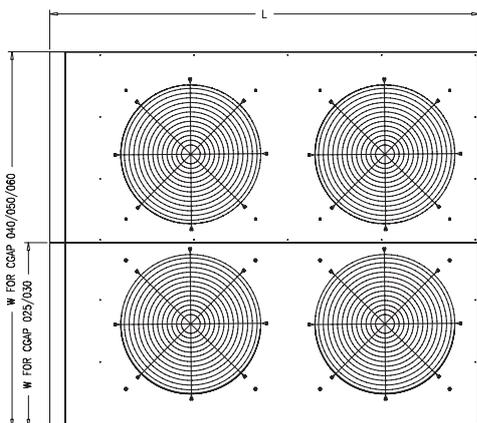
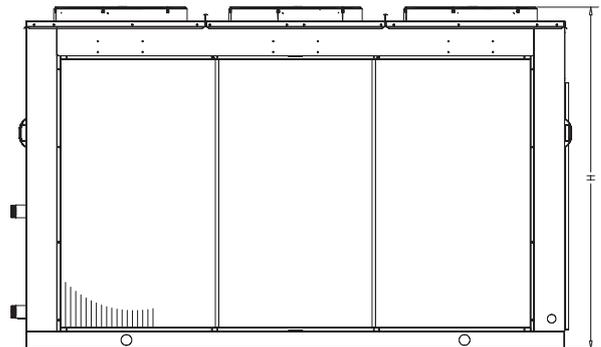
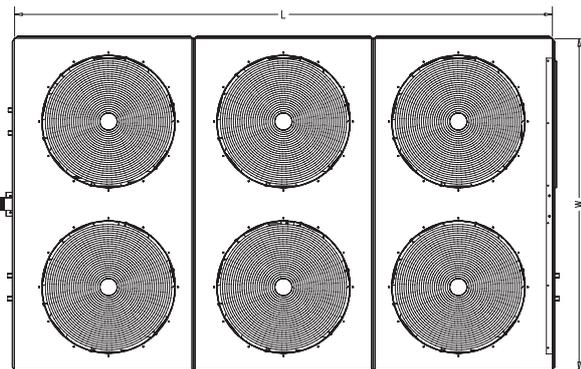
## Trane System Solutions... Trane Quantum Climate Changer, CLCP<sup>Euro</sup>



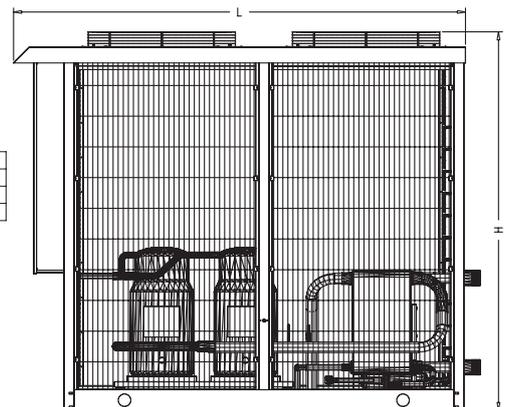
Trane Air-Systems, Chillers & Factory Engineered Controls

Trane offers a full HVAC system solution with complete Factory integrated systems controls for one stop Convenience as well as state of the art controls and air-systems solutions.

## CGAP/H Dimensions



MODEL	H	L	W
CGAP 025/030	1911	2264	1020
CGAP 040/050/060	1911	2264	1992
CGAH 080	2004	3136	1946



SIDE VIEW

TOP VIEW

## CGAP- CGAH General Data

		CGAP 025	CGAP 030	CGAP 040	CGAP 050	CGAP 060	CGAH 080
<b>Performances <sup>(1)</sup></b>							
Gross Cooling Capacity [R22] <sup>(1)</sup>	(kW)/(MBH)	64.5 / 220.3	77.7 / 265.2	100.1 / 341.8	127.1 / 433.8	156.1 / 532.8	208 / 710
Gross Cooling Capacity (R407C)	(kW)/(MBH)	61.3 / 209.3	73.8 / 252	95 / 324.7	120.7 / 412	148.3 / 506.2	197 / 674
Unit Capacity Steps (%)		100-50	100-50	100-75-50-25	100-75-50-25	100-75-50-25	100-75-50-25
Total Compressor Power Input <sup>(1)</sup>	(kW)	25.2	26.8	36.2	50.4	53.6	75.2
Main Power Supply		400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
Utilization Range		400 +, - 10%					
Sound Power Level	(dB(A))	87	89	89	90	92	92
<b>Compressor</b>							
Number		2	2	4	4	4	4
Type		Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
Model		2x13T	2 x15T	2x(10T+10T)	2 x (13T+13T)	2 x (15T+15T)	2 x (20Tx2)
Speeds Number		1	1	1	1	1	1
Motors Number		1	1	1	1	1	1
Unit MCA Amps <sup>(3)</sup>	(A)	49	57	75	93	108	147
RLA / LRA <sup>(2)</sup>	(A)	20.5/135	24/175	16.5/130	20.5/135	24/175	31 / 215
Motor RPM	(rpm)	2900	2900	2900	2900	2900	2900
<b>Condenser Coil</b>							
Type		Plate Fin	Plate Fin	Plate Fin	Plate Fin	Plate Fin	Plate Fin
Tube Size	(mm)	9.52	9.52	9.52	9.52	9.52	9.52
Tube Type		Smooth	Smooth	Smooth	Smooth	Smooth	Smooth
Height	( in )	72"	72"	72"	72"	72"	62"
Length	( in )	70"	70"	70"	70"	70"	108"
Quantity	( no's )	1	1	2	2	2	2
Rows		2+3	3	2	2+3	3	3
Fins Per Inch (fpf)		144	144	144	144	144	144
<b>Evaporator Data</b>							
Type		<----- Brazed Plate Heat Exchanger ----->					
Water Flowrate	US GPM	45	54	70.0	88	108.5	142
Nominal Flow, water PD	ft H <sub>2</sub> O	7.4	7.5	8	8.3	8.6	12.4
Minimum Flowrate	US GPM	33.8	40.5	52.5	66	81.4	106.5
Maximum Flowrate	US GPM	56.3	67.5	87.5	110	135.6	177.5
Water Strainer		Standard, Accessory, Ship with but installed at site					
Water Connection	BSPT	2 1/2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"
<b>Fan</b>							
Type		Propeller	Propeller	Propeller	Propeller	Propeller	Propeller
Number		2	2	3	4	4	6
Diameter	(mm)/(in)	711/28	711/28	711/28	711/28	711/28	760/30
Drive Type		Direct	Direct	Direct	Direct	Direct	Direct
Speeds Number		1	1	1	1	1	1
Motors Quantity		2	2	3	4	4	6
Motors kW <sup>(2)</sup>	kw/hp	0.6/0.75	0.6/0.75	0.6/0.75	0.6/0.75	0.6/0.75	0.9 / 1.2
FLA <sup>(2)</sup>	(A)	1.5	1.5	1.5	1.5	1.5	2.5
Motor RPM	(rpm)	900	900	900	900	900	720
<b>Dimensions</b>							
Height	(mm)	1911	1911	1911	1911	1911	2002
Width	(mm)	1002	1002	1992	1992	1992	1950
Length	(mm)	2264	2264	2264	2264	2264	3160
Weight Uncrated	(kg)	583	593	990	1153	1177	2030
Weight Crated	(kg)	603	613	1025	1188	1212	2080
<b>System Data</b>							
Refrigerant Circuit		1	1	2	2	2	2
<b>Minimum Outdoor Air Temperature for Mechanical Cooling</b>							
Standard Ambient Operating Range	(F)	59-109 F	59-109 F	59-109 F	59-109 F	59-109 F	59-109 F
	(C)	15-43 C	15-43 C	15-43 C	15-43 C	15-43 C	15-43 C
High Pressure [cut out - cut in]	(psig)	415 ± 10 psig, 250 ± 15 psig					
Low Pressure [cut out - cut in]	(psig)	45 ± 5 psig, 60 ± 5 psig					

### Notes

- [1] Based on chilled water EWT & LWT of 54 deg. F & 44 deg F and 95 deg F, ambient air temp.  
 [2] Per Motor @ 400V

- [3] Minimum Circuit Ampacity (MCA) is 125% of the largest compressor RLA plus 100% of the other compressor RLA plus the sum of the condenser fan FLA.



Literature Order Number CXXC-SLB001-E4

Date Jan 2009

Supersedes Oct 2008

Stocking location Malaysia

Trane

[www.trane.com](http://www.trane.com)

For more information, contact your local district office

Trane has a policy of continuous product and product data improvement and reserves the right to change design and specification without notice.