

## Outdoor chillers

Axial fans, scroll compressor  
cooling-only or heat pump models  
50-270 kW\*

# CGAN/CXAN



Tracer™ CH532



CGAN/CXAN

### Customer benefits

- Packaged hydraulic module for easier installation: saving of time
- Low Sound version for sensitive environment: a high level of acoustic comfort
- Wide application flexibility for comfort and process applications to fit the customer's exact requirements

### Main features

- Scroll Compressors
  - Hermetic, high efficiency, low vibration, low sound level
  - Full internal protections, internal temperature and bypass valve
  - Built-in oil level sight glass and oil charging valve
  - Compressor sound attenuating enclosure (super quiet units)
- External sheet metal parts are galvanized and finished with powder paint RAL 9002
- Access panels are quickly removable using a square key
- Disconnect switch/transformer
- Waterflow switch

### Options

- Super quiet operation
- Integrated hydraulic module with or without buffer tank (footprint unchanged)
  - Single or double pump package
  - Copper fins or black epoxy-coated fins
  - Anti-freeze protection on waterside
  - 380, 400 and 415V power voltage
  - Phase reversal protection

- High and low pressure gauges
  - Soft starter up to size 300
  - High static pressure fans
  - Coil protection guards
  - Undersized or oversized water pump for information, contact your local sales office
  - **Factory-mounted LonTalk® serial link**  
Allowing you to:
    - Modify the chilled or hot water temperature setpoint
    - Start or stop the unit
    - Switch from cooling to heating mode
    - Monitor water temperature setpoint, ambient air temperature, chiller operation, fans, water pumps, compressor alarms
    - TraneTracer Summit™ BMS direct compatibility
- LonTalk® is an open communication protocol used on AquaStream<sup>2</sup> and water terminal units.**

### Control

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

- Leaving water temperature
- History of the last 200 defaults
- Cold or hot water reset
- On/off scheduling
- Anti-freeze protection of evaporator, control defrost (CXAN)
- Remote control: dry contact for general fault
- Inputs for external water setpoint reset, auxiliary setpoint, and cooling/heating switch

## General data


**Unit size**

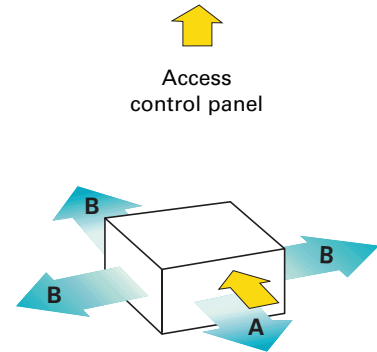
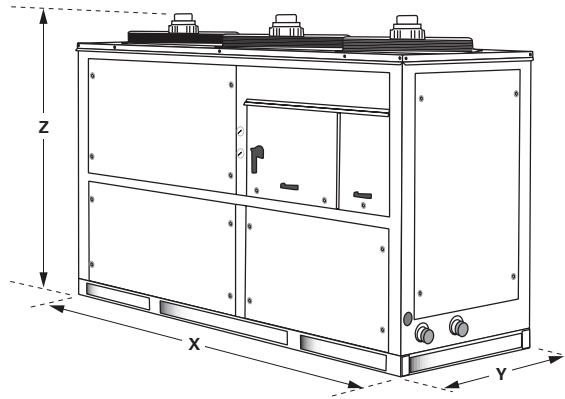
		200	250	300	400	450	490	500	600	700	800	900	925
<b>Cooling Capacity</b>	(kW)	49.7	64.1	78.1	104.4	120.8	130.1	132.1	161.0	188.1	219.5	243.8	268.2
Power input in cooling	(kW)	19.5	24.4	28.8	38.9	44.7	50.8	49.1	57.9	69.1	77.9	91.1	101.3
Energy Efficiency Ratio		2.55	2.63	2.71	2.68	2.70	2.56	2.69	2.78	2.72	2.82	2.68	2.65
<b>Cooling Capacity</b>	(kW)	45.3	62.3	75.2	92.1	119.3	125.4	123.0	156.8	171.6	200.0	227.6	251.2
Power input in cooling	(kW)	19.1	25.4	29.3	39.2	44.8	49.7	51.1	60.7	69.8	78.2	91.6	100.9
Energy Efficiency Ratio		2.37	2.45	2.57	2.35	2.66	2.52	2.41	2.58	2.46	2.56	2.48	2.49
<b>Heating Capacity</b>	(kW)	49.3	61.1	74.2	101.7	115.1	120.9	122.1	149.0	176.1	203.4	225.5	252.9
Power input in Heating	(kW)	20.3	24.9	30.4	43.0	45.7	48.7	49.5	60.4	69.6	84.5	92.6	101.1
Coefficient Of Performance		2.42	2.45	2.44	2.37	2.52	2.48	2.47	2.47	2.53	2.41	2.44	2.50
Refrigerant		R407C											
Number of refrigerant circuit		1	1	1	1	1	1	2	2	2	2	2	2
Compressor type		Scroll											
Number of capacity steps		2	2	2	2	2	2	4	4	4	4	4	4
Number of compressors		2	2	2	3	2	2	4	4	6	6	6	4
Evaporator type		Brazed plate											
Evaporator water content	(l)	4.8	5.9	6.9	9.0	11.3	12.6	17.2	19.8	25.6	29.0	32.3	35.7
Evaporator water connection type		Male ISO R7											
Evaporator water connection diameter	(inches)	2"	2"	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	3"	3"	3"	3"
Condenser type		Copper tubes with aluminium fins											
Total airflow (standard unit)	(m <sup>3</sup> /h)	20200	19100	26300	37300	37100	37100	38300	52700	55400	86300	83000	79300
Number of fans		2	2	3	3	3	3	4	6	6	6	6	6
Fan speed		700	700	700	680	680	680	700	700	700	680	680	680
Sound power level (standard unit)	(dBA)	84	85	86	87	90	91	88	89	89	94	95	95
Sound power level (super quiet option)	(dBA)	78	78	79	83	86	86	83	84	85	88	88	89
Minimum operating outdoor air temperature - cooling mode	(°C)	10 (-10 or -18 with low ambient operation options)											
Minimum operating outdoor air temperature - heating mode	(°C)	-10											
Maximum operating conditions (2)	(°C)	CGAN 43/CXAN 42											
Minimum leaving water temperature	(°C)	-12											
Maximum leaving water temperature (cooling/heating)	(°C)	15/50 (3)											

(1) At Eurovent conditions (cooling: water 12°C/7°C - air: 35°C/heating: water 40°C/45°C-air:DB 7°C/WB 6°C). Ratings based on sea level altitude and evaporator fouling factor of 0.044 m<sup>2</sup>°K/kW

(2) Cooling: water 12/7°C

(3) Above 0°C ambient. For applications below 0°C ambient, contact your local sales office.

## Dimensions, weights and clearances



Weights (1)

Unit size	Dimensions (1) (mm)			Water tank additional height (mm)	Operating weight (kg)	Shipping weight (kg)	Water tank net weight (kg)	Water tank content (l)	Minimum clearances (mm)	
	X	Y	Z						A	B
CGAN 200	2800	1100	1897	400	748	743	396	370	1300	1000
CGAN 250	2800	1100	1897	400	842	834	396	370	1300	1000
CGAN 300	3200	1100	1897	400	968	954	437	410	1300	1000
CGAN 400	3200	1100	2074	400	1143	1124	437	410	1300	1000
CGAN 450	3200	1100	2074	400	1267	1260	437	410	1300	1000
CGAN 490	3200	1100	2074	400	1292	1284	437	410	1300	1000
CGAN 500	3400	2300	1897	400	1623	1588	644	570	1300	1000
CGAN 600	3400	2300	1897	400	1818	1778	644	570	1300	1000
CGAN 700	3400	2300	1995	400	2087	2030	644	570	1300	1000
<b>CGAN 800</b>	<b>3400</b>	<b>2300</b>	<b>2100</b>	<b>400</b>	<b>2245</b>	<b>2181</b>	<b>644</b>	<b>570</b>	<b>1300</b>	<b>1000</b>
CGAN 900	3400	2300	2100	400	2423	2344	644	570	1300	1000
CGAN 925	3400	2300	2100	400	2456	2377	644	570	1300	1000
CXAN 200	2800	1100	1897	400	776	771	396	370	1300	1000
CXAN 250	2800	1100	1897	400	870	862	396	370	1300	1000
CXAN 300	3200	1100	1897	400	996	982	437	410	1300	1000
CXAN 400	3200	1100	2074	400	1182	1163	437	410	1300	1000
CXAN 450	3200	1100	2074	400	1302	1295	437	410	1300	1000
CXAN 490	3200	1100	2074	400	1331	1323	437	410	1300	1000
CXAN 500	3400	2300	1897	400	1677	1642	644	570	1300	1000
CXAN 600	3400	2300	1897	400	1872	1832	644	570	1300	1000
CXAN 700	3400	2300	1995	400	2166	2109	644	570	1300	1000
CXAN 800	3400	2300	2100	400	2324	2260	644	570	1300	1000
CXAN 900	3400	2300	2100	400	2502	2423	644	570	1300	1000
CXAN 925	3400	2300	2100	400	2535	2456	644	570	1300	1000

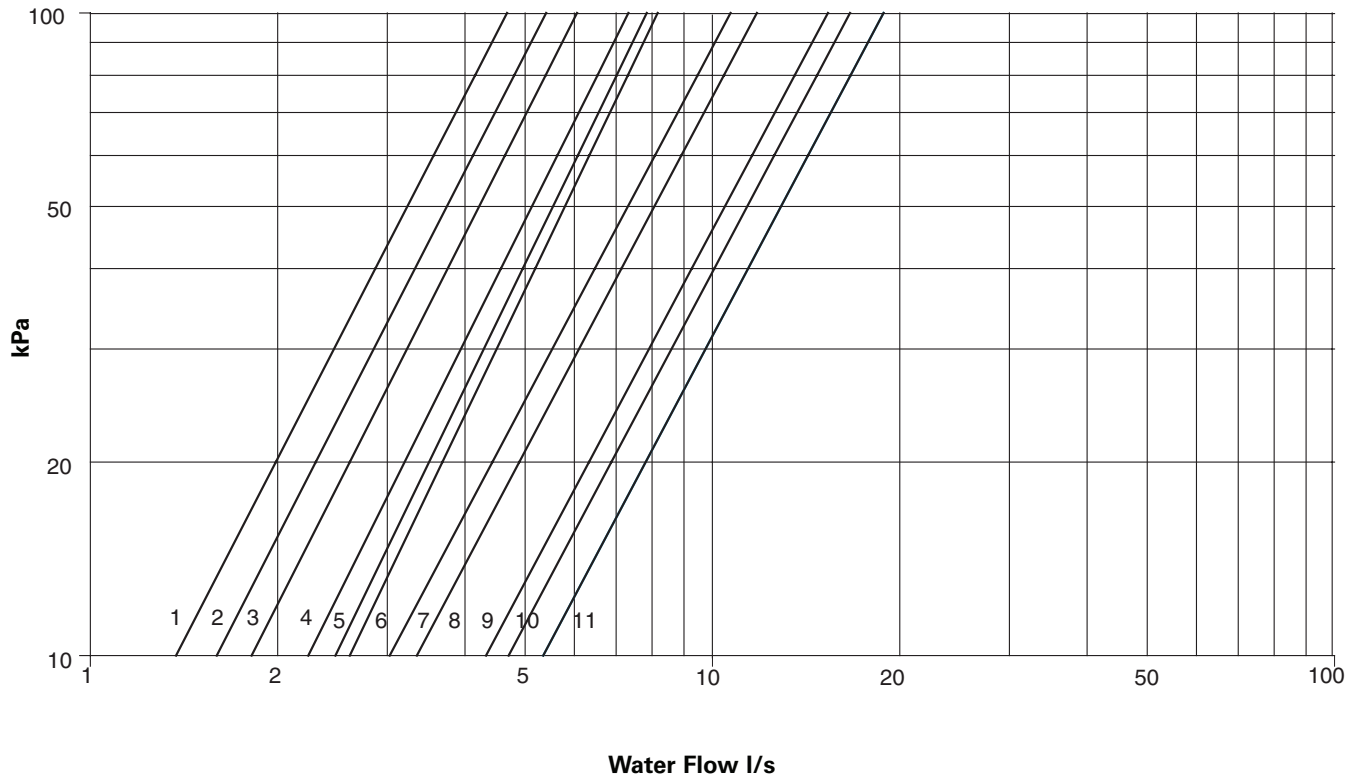
(1) Without hydraulic module or buffer tank, with aluminium fins

## Electrical data

Unit size		200	250	300	400	450	490	500	600	700	800	900	925
Power supply	(V/Ph/Hz)	400/3/50											
Standard starter type		Direct											
Start-up amps	(A)	148	203	215	236	327	336	259	282	300	334	354	450
Maximum amps	(A)	47	57	69	89	102	111	113	136	153	188	208	225
Maximum cable size	(mm <sup>2</sup> )	16	35	35	50	50	50	50	95	95	95	150	150
Fan motor power (1)	(kW)	0.6	0.6	0.6	1.05	1.05	1.05	0.6	0.6	0.6	1.5	1.5	1.4

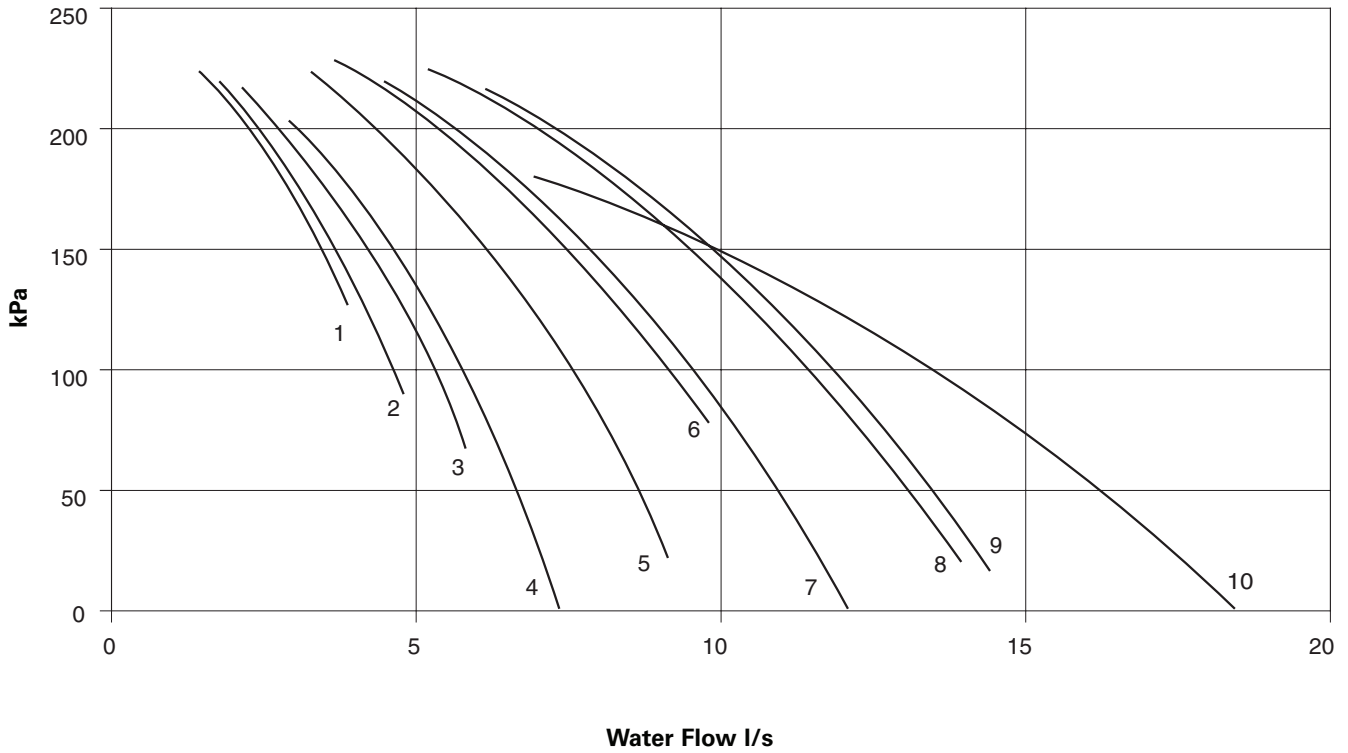
(1) Per fan standard unit

## Evaporator water pressure drop



- |                   |                        |
|-------------------|------------------------|
| 1 = CGAN/CXAN 200 | 7 = CGAN/CXAN 500      |
| 2 = CGAN/CXAN 250 | 8 = CGAN/CXAN 600      |
| 3 = CGAN/CXAN 300 | 9 = CGAN/CXAN 700      |
| 4 = CGAN/CXAN 400 | 10 = CGAN/CXAN 800     |
| 5 = CGAN/CXAN 450 | 11 = CGAN/CXAN 900/925 |
| 6 = CGAN/CXAN 490 |                        |

## Chiller available pressure - hydraulic module option



- |                   |                        |
|-------------------|------------------------|
| 1 = CGAN/CXAN 200 | 6 = CGAN/CXAN 600      |
| 2 = CGAN/CXAN 250 | 7 = CGAN/CXAN 700      |
| 3 = CGAN/CXAN 300 | 8 = CGAN/CXAN 800      |
| 4 = CGAN/CXAN 400 | 9 = CGAN/CXAN 900      |
| 5 = CGAN/CXAN 500 | 10 = CGAN/CXAN 900/925 |

## Performance data - CGAN

Evaporator Leaving Water Temperature (°C)	Unit size	Condenser Entering Air Temperature (°C)							
		30		35		40		43	
		Cooling capacity (1) (kW)	Total power input (kW)	Cooling capacity (1) (kW)	Total power input (kW)	Cooling capacity (1) (kW)	Total power input (kW)	Cooling capacity (1) (kW)	Total power input (kW)
5	200	49.0	17.2	46.3	19.2	43.4	21.4	41.5	23.0
	250	63.2	21.4	59.8	23.9	56.1	26.8	53.7	28.6
	300	76.8	25.5	72.8	28.3	68.6	31.4	65.9	33.5
	400	102.6	34.5	97.4	38.2	91.7	42.4	88.1	45.2
	450	120.4	39.3	113.3	43.7	105.7	48.6	101.0	51.8
	490	129.9	44.8	122.1	49.7	113.8	55.1	-	-
	500	131.3	43.1	123.9	48.1	115.8	53.7	110.8	57.4
	600	159.4	51.3	150.8	56.8	141.6	63.0	135.8	67.1
	700	186.9	60.8	176.2	67.7	164.7	75.5	157.5	80.7
	800	217.1	69.5	205.3	76.6	192.9	84.6	185.0	89.9
900	242.1	80.8	228.6	89.2	214.2	98.7	205.1	104.9	
925	269.1	89.9	252.4	99.1	234.9	109.2	-	-	
7	200	52.6	17.5	49.7	19.5	46.6	21.8	44.6	23.4
	250	67.8	21.9	64.1	24.4	60.1	27.3	57.6	29.2
	300	82.3	26.0	78.1	28.8	73.6	32.0	70.7	34.1
	400	110.0	35.2	104.4	38.9	98.3	43.1	94.5	46.0
	450	128.3	40.3	120.8	44.7	112.9	49.6	-	-
	490	138.2	45.9	130.1	50.8	121.4	56.2	-	-
	500	140.1	44.0	132.1	49.1	123.6	54.8	-	-
	600	170.2	52.3	161.0	57.9	151.3	64.2	145.1	68.3
	700	199.4	62.0	188.0	69.1	175.8	77.0	-	-
	800	232.0	70.8	219.5	77.9	206.2	86.0	197.8	91.4
900	258.3	82.5	243.9	91.1	228.5	100.7	-	-	
925	285.7	92.1	268.3	101.3	249.9	111.4	-	-	
9	200	56.3	17.8	53.2	19.9	49.9	22.2	47.8	23.8
	250	72.4	22.4	68.5	24.9	64.2	27.9	61.5	29.8
	300	88.0	26.5	83.5	29.4	78.7	32.6	75.6	34.7
	400	117.7	35.8	111.7	39.6	105.2	43.9	101.1	46.7
	450	136.4	41.3	128.5	45.8	120.2	50.7	-	-
	490	146.8	47.1	138.2	52.0	129.2	57.4	-	-
	500	149.1	45.0	140.6	50.1	131.5	55.9	-	-
	600	181.3	53.4	171.6	59.1	161.2	65.4	154.6	69.5
	700	212.4	63.4	200.3	70.5	187.3	78.6	-	-
	800	247.4	72.1	234.1	79.4	219.9	87.6	211.0	92.9
900	274.9	84.4	259.5	93.1	243.2	102.8	-	-	
925	302.9	94.4	284.6	103.6	265.4	113.6	-	-	

(1) At evaporator outlet, ratings are based on evaporator temperature drop of 5°C  
 Ratings based on sea level altitude and evaporator fouling factor of 0.044 m<sup>2</sup>K/kW