



Indoor Air-Cooled Chillers and Heat Pumps

Model CGCM 012 to 090
Cooling capacity 43 - 315 kW

Model CXCM 015 to 080
Cooling capacity 54 - 291 kW
Heating capacity 62 - 327 kW



Indoor Air-Cooled Chillers and Heat Pumps

Air/water chillers and heat pumps with plug fans and scroll compressors

Range description

Designed for indoor installation in buildings with ducted air intake and discharge. Vertical or horizontal air discharge.

- **CGCM** chillers with/without hydraulic module
- **CXCM** heat pumps with/without hydraulic module

Unit description

- Hermetic scroll compressors, low vibration and low sound level
- Plug fan for built-in mounting
- Water side plate heat exchanger with differential pressure switch and antifreeze protection electric heater
- Air side heat exchanger high efficiency finned coils with seamless copper tubes expanded into corrugated aluminum
- Microprocessor-based controller to manage unit on/off mode, operating mode setting and parameters setting
- Thermostatic expansion valve
- Casing and panels in galvanised and painted steel
- Horizontal or vertical air flow



Options

- Partial heat recovery/total heat recovery (CGCM only)
- Compressors sound jackets
- Soft - starter
- Serial communication card RS 485
- Electronic expansion valve
- Power factor correction to $\cos\phi = 0.91$
- Automatic circuit breakers
- Numbered wires
- Over/under voltage + phase failure protection relay
- Electronically Commutated (EC) fans for improved capacity modulation and energy savings
- Epoxy coated condensing coils
- Pre-painted condensing coils
- Copper/copper condensing coils

- Tinned copper condensing coils
- Condensing control with variable fan speed modulation with inverter for operation down to $+10^{\circ}\text{C}$ outdoor air temperature

Accessories

- Remote display
- Flow switch
- Automatic water filling
- Water strainer
- Water gauges
- Gas gauges
- Rubber anti-vibration mounts
- Spring anti-vibration mounts

Advantages

- Eco-friendly and efficient through the use of R410A refrigerant.
- Compact dimensions allow for flexible installations in both new and existing buildings.
- Maintenance operations are easy thanks to the location of the components.
- Excellent acoustic comfort levels.
- High efficiency plug fan for indoor installation with ducted air intake and discharge.
- Optional EC plug fan for increased external static pressure up to 400 Pa.



Operating range		CGCM	CXCM cooling	CXCM heating
Outdoor air temperature range (min./max.)**	(°C)	22 / 45	22 / 45	-5 / 20
Leaving water temperature range (min./max.)	(°C)	-8 / 15	-8 / 15	26 / 55
Power supply	(V/Ph/Hz)	400/3+n/50		

** operation down to +10°C outdoor air temperature possible, see options

Chiller Version

General data

CGCM	Unit size	012	015	016	020	025	033	035
Cooling (1)								
Cooling capacity	kW	43.50	49.70	57.10	73.30	89.20	116	130
Total power input	kW	17.60	20.40	21.70	27.60	36.20	44.50	50
EER		2.47	2.44	2.63	2.65	2.46	2.61	2.59
Number of refrigerant circuits		1	1	1	1	1	1	1
Number of compressors		2	2	2	2	2	2	2
Compressor type		Scroll						
Sound pressure level (2)	dB(A)	58	58	58	58	59	61	61
Sound power level (3)	dB(A)	90	90	90	90	91	92	92

CGCM	Unit size	040	045	050	055	065	080	090
Cooling (1)								
Cooling capacity	kW	139	154	179	187	234	289	315
Total power input	kW	56.10	62.30	68.50	75.70	95.40	111	117
EER		2.49	2.46	2.61	2.48	2.46	2.60	2.70
Number of refrigerant circuits		1	1	1	1	1	2	2
Number of compressors		2	2	2	3	3	4	4
Compressor type		Scroll						
Sound pressure level (2)	dB(A)	61	61	61	62	62	62	62
Sound power level (3)	dB(A)	93	93	93	94	94	94	94

(1) Outdoor temperature 35°C - chilled water temperature in/out 12/7°C

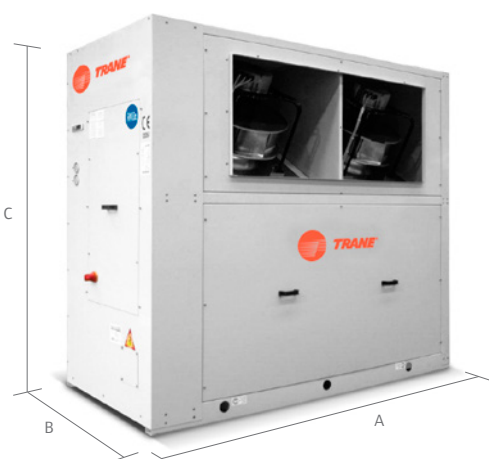
(2) According to ISO 3744 at 5 m distance from the unit

(3) According to ISO 9614 for Eurovent certified units, or ISO 3744 for non-certified units

Dimensions and weights

CGCM	Unit size	012	015	016	020	025	033	035
A	mm	1605	1605	1605	1605	2350	2350	2350
B	mm	926	926	926	926	1106	1106	1106
C	mm	1990	1990	1990	1990	2095	2095	2095
Shipping weight CGCM	kg	656	666	727	729	1058	1145	1276

CGCM	Unit size	040	045	050	055	065	080	090
A	mm	3350	3350	3350	4456	5456	5456	5456
B	mm	1306	1306	1306	1306	1306	1306	1306
C	mm	2095	2095	2145	2145	2145	2145	2145
Shipping weight CGCM	kg	1636	1665	1802	2190	2543	2905	2952



Controller in single circuit
CGCM/CXCM units

Heat Pump Version

General data

CXCM	Unit size	015	020	025	030	035
Cooling (1)						
Cooling capacity	kW	53.80	67.10	84.50	97.40	123
Total power input	kW	331.80	27.20	36.10	39.70	49.90
EER		2.47	2.46	2.34	2.45	2.46
Heating (2)						
Heating capacity	kW	62	79.10	99.60	112	143
Total power input	kW	21.60	27.40	35.60	38.50	48.20
COP		2.87	2.89	2.79	2.90	2.96
Heating (5)						
Prated, heating	kW	59	75	94.6	106.5	135.9
η_s	(%)	115	117	115	117	119
SCOP	kW/kW	2.95	2.99	2.95	3.00	3.05
Number of refrigerant circuits		1	1	1	1	1
Number of compressors		2	2	2	2	2
Compressor type		Scroll				
Sound pressure level (3)	dB(A)	56	56	59	61	61
Sound power level (4)	dB(A)	88	88	91	92	92

CXCM	Unit size	037	048	050	060	075	080
Cooling (1)							
Cooling capacity	kW	132	172	177	215	270	291
Total power input	kW	56.50	67.10	75.80	94.90	110	116
EER		2.34	2.56	2.33	2.26	2.44	2.52
Heating (2)							
Heating capacity	kW	155	198	204	252	308	327
Total power input	kW	54.60	68	73.90	93.30	107	114
COP		2.84	2.91	2.76	2.70	2.86	2.86
Heating (5)							
Prated, heating	kW	148.3	189.6	194.9	242.7	294.9	313.9
η_s	(%)	115	117	121	117	121	121
SCOP	kW/kW	2.95	3.00	3.09	3.01	3.11	3.09
Number of refrigerant circuits		1	1	1	1	2	2
Number of compressors		2	2	3	3	4	4
Compressor type		Scroll					
Sound pressure level (3)	dB(A)	61	61	62	62	62	62
Sound power level (4)	dB(A)	93	93	94	94	94	94

(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

(5) Ecodesign rating at low temperature conditions. Outdoor temperature: 7°C dry bulb/6°C wet bulb and hot water temperature in/out: 30°C/35°C

Dimensions and weights

CXCM	Unit size	015	020	025	030	035	037	048	050	060	075	080
A	mm	1605	1605	2350	2350	2350	3346	3346	4456	5456	5456	5456
B	mm	926	926	1106	1106	1106	1306	1306	1306	1306	1306	1306
C	mm	1990	1990	2095	2095	2095	2095	2095	2145	2145	2145	2145
Shipping weight CXCM	kg	873	875	1076	1177	1400	1656	1912	2204	2586	2916	2962



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