



# CGCM

## Indoor air-cooled scroll chiller



### Customer benefits

- 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
- Digital Defrost is a self-adaptive defrosting system able to intervene only in case of a consistent thickness formation of ice on the coils' fins
- Dynamic Logic Control manages the differential of the inlet water temperature on the basis of the speed of its variation. Thanks to the DLC the number of the compressor starts decreases ensuring economic and energy savings.
- Dynamic Set Point function allows changing the setpoint simultaneously to always achieve the conditions of best comfort and maximum energy savings.

### Main features

- Hermetic scroll compressors, low vibration and low sound level
- 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.
- Waterside plate heat exchanger with differential pressure switch and antifreeze protection electric heater
- Airside heat exchanger high efficiency finned coils with seamless copper tubes expanded into corrugated aluminum
- Thermostatic expansion valve
- Casing and panels in galvanized and painted steel
- Horizontal or vertical air flow

### Options

- Partial heat recovery/total heat recovery
- 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 or gas gauges
- Rubber or spring anti-vibration mounts

### Controls

- Microprocessor-based controller to manage unit on/off mode, operating mode setting and parameters setting

Operating outdoor air temperature range (min./max.) (1)	(°C)	22/45
Leaving water temperature range (min./max.) (2)	(°C)	-8/15
Power supply	(V/Ph/Hz)	400/3+n/50

CGCM		012	015	016	020	025	033	035	040	045	060	055	065	080	090
Cooling capacity (2)	(kW)	43.5	49.7	57.1	73.3	89.2	116.0	130.0	139.0	154.0	179.0	187.0	234.0	289.0	315.0
Total power input (2)	(kW)	17.6	20.4	21.7	27.6	36.2	44.5	50.0	56.1	62.3	68.5	75.7	95.4	111.0	117.0
EER (2)		2.47	2.44	2.63	2.65	2.46	2.61	2.59	2.49	2.46	2.61	2.48	2.46	2.60	2.70
ESEER (2)															
Sound power level (3)	(dBA)	90	90	90	90	91	92	92	93	93	93	94	94	94	94
Sound pressure level (4)	(dBA)	58	58	58	58	59	61	61	61	61	61	62	62	62	62
Number of circuit(s)		1	1	1	1	1	1	1	1	1	1	1	1	2	2
Number of compressors per circuit		2	2	2	2	2	2	2	2	2	2	3	3	4	4
<b>Dimensions and weights (operating)</b>															
Length	(mm)	1605	1605	1605	1605	2350	2350	2350	3350	3350	3350	4456	5456	5456	5456
Width	(mm)	926	926	926	926	1106	1106	1106	1306	1306	1306	1306	1306	1306	1306
Height	(mm)	1990	1990	1990	1990	2095	2095	2095	2095	2095	2145	2145	2145	2145	2145
Weight (shipping)	(kg)	656	666	727	729	1058	1145	1276	1636	1665	1802	2190	2543	2905	2952

(1) Operation down to +10°C possible, see options

(2) At Eurovent conditions: 12/7°C entering/leaving water temperature and 35°C ambient temperature according to EN 14511

(3) At Eurovent conditions, with 1pW reference sound power, according to ISO9614

(4) Average at 10 meters in a free field. This is a non-contractual data, calculated from the above certified sound power level according to the formula  $L_p=L_w-10\log S$ . This is an averaged value considering the unit as a parallelepipedic box with five exposed face areas.