# **Centrifugal Chiller**

# Liquid chiller

Water cooled Indoor installation

Capacity from 878 to 1933 kW











- ✓ Patented horizontal back to back centrifugal compressor with inverter regulation
- ✓ Solution for large commercial and industrial buildings
- ✓ Refrigerant R134a GWP = 1430
- √ Vey high full load and seasonal efficiency with SEER values up to 9.06
- √ Falling film evaporator, economizer, oil recovery system
- ✓ Low noise operation and almost total absence of vibrations
- ✓ Compact size: length measure less than 4 meters
- ✓ Condenser water temperature up to 40°C, evaporator water temperature down to 4°C

## functions and features

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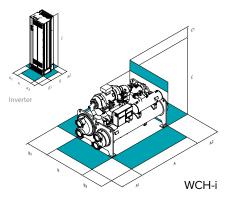


Inverte expansion



valve

# dimensions and clearances



For trouble-free operation of the unit it is essential to maintain the safety distances indicated by the green areas.

Size	▶► WCH-i	250	300	350	400	450	500	550
Unit dimensions								
A - Length	mm	3820	3870	3870	3770	3810	3810	3770
B - Width	mm	1760	1760	1760	1970	1970	1970	1970
C - Height	mm	2130	2130	2130	2170	2170	2170	2170
A1	mm	1200	1200	1200	1200	1200	1200	1200
A2	mm	1200	1200	1200	1200	1200	1200	1200
B1	mm	1000	1000	1000	1000	1000	1000	1000
B2	mm	1200	1200	1200	1200	1200	1200	1200
C1	mm	1200	1200	1200	1200	1200	1200	1200
Operating weight	kg	5780	5852	6020	7264	7688	7940	8364
Size	▶▶ WCH-i	250	300	350	400	450	500	550

Size	▶► WCH-i	250	300	350	400	450	500	550
Inverter dimensions								
A - Length	mm	420	420	420	420	420	602	602
B - Width	mm	378	378	378	378	378	514	514
C - Height	mm	1100	1100	1100	1100	1100	2043	2043
B1	mm	600	600	600	600	600	800	800
C1	mm	225	225	225	225	225	225	225
Operating weight	kg	125	125	125	125	125	300	300

The above mentioned data are referred to standard units for the constructive configurations indicated.

For all the other configurations, refer to the relative Technical Bulletin.



# versions and configurations

## HOT GAS BY PASS:

Hot gas by pass: not required (Standard)

В Hot gas by pass

## technical data

Size	<b>▶▶</b> V	VCH-i	250	300	350	400	450	500	550
Cooling									
<ul> <li>Cooling capacity (EN 14511:2022)</li> </ul>	(1)	kW	878	1054	1230	1405	1581	1757	1933
Total power input (EN 14511:2022)	(1)	kW	156	182	211	236	262	292	326
EER (EN 14511:2022)	(1)	-	5,62	5,80	5,82	5,97	6,03	6,01	5,93
SEER	(4)	-	7,66	7,99	8,36	8,82	8,97	9,01	9,06
η <sub>s,c</sub>	(4)	%	298,2	311,7	326,5	344,6	350,6	352,4	354,3
Refrigeration circuits		Nr				1			
No. of compressors		Nr				1			
Type of compressors	(3)	-				CFGi			
Refrigerant		-				R-134a			
Water flow-rate (User side)		l/s	41,7	50,1	58,5	66,8	75,1	83,5	91,9
Water flow (Source side)		-	49,5	59,2	69,0	78,5	88,2	98,1	108,0
Standard power supply		V				400/3~/50			
Sound power level	(2)	dB(A)	99	99	100	99	99	100	100

<sup>(1)</sup> Data calculated according to EN 14511:2022 referred to the following conditions: Internal exchanger water temperature = 12/7°C; External exchanger water temperature = 30/35°C. (2) Sound pressure levels are referred to units operating at nominal load in nominal conditions. Measurements are carried out accordingly to UNI EN ISO 9614-1 at nominal standard conditions defined in respective regulations: EU 2016/2281, UE 813/2013, UE 811/2013. Sound power level are not Eurovent certified.

(3) CFGi = Inverter driven centrifugal compressor (4) Data calculated according to the EN 14825:2018 Regulation

The Product is compliant with the Erp (Energy Related Products) European Directive. It includes the Commission delegated Regulation (EU) No 2016/2281, also known as Ecodesign Lot21.

# accessories

EV2R	Two-stage evaporator and right connections	<b>AMMSX</b>	Anti-seismic spring antivibration mounts
EV10P	One-stage evaporator and opposing connections	<b>2VBYX</b>	ON/OFF motorized by-pass valve
EV30P	Three-stage evaporator and opposing connection	CSIC	Shielded connection cables between inverter and compressor: length 4.5
<b>EV16</b>	Evaporator water pressure 16 bar		metres
<b>IS40</b>	Insulation for evaporator with thickness of 40mm	QSGX	Electrical panel with main switch
CO2R	Two-stage condenser and right connections	CCSQX	Connection cables from electrical panel with main switch (QS6X) to
CO10P	One-stage condenser and opposing connections		inverter and unit electrical panel
CO30P	Three-stage condenser and opposing connection	<b>EVMAG</b>	Larger size evaporator
CO16	Condenser water pressure 16 bar	COMAG	Increased condenser
<b>AMMX</b>	Rubber antivibration mounts	CTAS	Larger size compressor
<b>AMRX</b>	Rubber antivibration mounts		

Accessories whose code ends with "X" are supplied separately