

WMG

Water-water chiller

Cooling capacity 282,3 ÷ 312,4 kW



- High efficiency also at partial loads
ESEER 8,4
- Compact design
- Extremely flexible and reliable



DESCRIPTION

Indoor unit for the production of chilled water, equipped with magnetic levitation centrifugal compressors and system side, flooded source heat exchangers that guarantee a 50% reduction of the refrigerant load in comparison to conventional flooded heat exchangers.

The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

The technological choices made, always oriented to the highest quality and efficiency can reach 5.71 EER values (class A for the working conditions Eurovent).

EFFICIENCY

A High efficiency

U Very high efficiency

Both units can be silenced.

FEATURES

- 5 times lighter than an equivalent screw compressor.
- Extremely compact wide to allow access through a standard doorway.
- High efficiency with generously sizes heat exchanger.

HFO R1234ze refrigerant gas

HFO R1234ze is a mixture featuring:

da ODP = 0 e GWP (Global Warming Potential) = 7, R134a GWP = 1430;

with thermodynamic properties that guarantee and sometimes improve efficiencies achieved with HFC refrigerants.

Two-stage, oil-free centrifugal compressor with latest-generation magnetic levitation

Oil-free operation without mechanical friction it is possible thanks to the use of magnetic levitation bearings that also ensure the total absence of vibration and low frequency noise.

Provided with inverter technology that permits capacity modulation down to 30% A version.

Built-in device to reduce starting current (only 6 Amps!)

Operating field

Water produced from 20 °C up to 55 °C on Condenser side and from 5 °C up to 20 °C on Evaporator side.

Acoustic chiller enclosure (option)

in galvanised sheet metal of suitable thickness insulated on the inside with sound-proofing material.

CONTROL

Microprocessor adjustment, with 7" touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time and the adjustment includes complete management of the alarms and their log.

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.

AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP

AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.

CONFIGURATOR

Field	Description
1,2,3	WMG
4,5,6	Size 300
7	Efficiency
A	High efficiency

Field	Description
U	Very high efficiency
8	Version
°	Standard
L	Silenced

PERFORMANCE SPECIFICATIONS

Size	300		
Efficiency: A			
Cooling performance 12 °C / 7 °C (1)			
Cooling capacity	°L	kW	312,4
Input power	°L	kW	57,6
Cooling total input current	°L	A	85,0
EER	°L	W/W	5,42
Water flow rate system side	°L	l/h	53731
Pressure drop system side	°L	kPa	31
Water flow rate source side	°L	l/h	63303
Pressure drop source side	°L	kPa	36
Efficiency: U			
Cooling performance 12 °C / 7 °C (1)			
Cooling capacity	°L	kW	282,3
Input power	°L	kW	49,1
Cooling total input current	°L	A	74,0
EER	°L	W/W	5,75
Water flow rate system side	°L	l/h	48548
Pressure drop system side	°L	kPa	25
Water flow rate source side	°L	l/h	56739
Pressure drop source side	°L	kPa	29

(1) Date 14511:2022; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C

ENERGY INDICES (REG. 2016/2281 EU)

Size	300		
SEER - 12/7 (EN14825: 2018) (1)			
SEER	A	W/W	8,88
	U	W/W	8,91
Seasonal efficiency	A	%	352,0%
	U	%	353,4%
SEPR - (EN 14825: 2018) High temperature (2)			
SEPR	A	W/W	9,96
	U	W/W	10,37

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

(2) Calculation performed with FIXED water flow rate.

ELECTRIC DATA

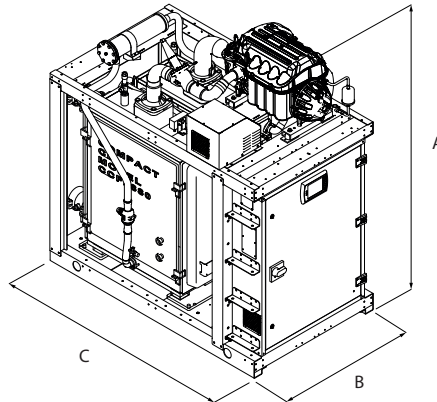
Size	300		
Efficiency: A, U			
Electric data			
Maximum current (FLA)	°L	A	150,0
Peak current (LRA)	°L	A	6,0

GENERAL TECHNICAL DATA

Size		300	
Efficiency: A, U			
Compressor			
Type	°L	type	Centrifugal
Compressor regulation	°L	Type	Inverter
Number	°L	no.	1
Circuits	°L	no.	1
Refrigerant	°L	type	R1234ze
Source side heat exchanger			
Type	°L	type	Shell and tube - flooded compact
Number	°L	no.	1
Connections (in/out)	°L	Type	Grooved joints
Sizes (in/out)	°L	Ø	4"
System side heat exchanger			
Type	°L	type	Shell and tube - flooded compact with Spray system
Number	°L	no.	1
Connections (in/out)	°L	Type	Grooved joints
Sizes (in/out)	°L	Ø	4"
Size		300	
Efficiency: A			
Sound data calculated in cooling mode (1)			
Sound power level	°	dB(A)	90,0
	L	dB(A)	85,0
Efficiency: U			
Sound data calculated in cooling mode (1)			
Sound power level	°	dB(A)	84,0
	L	dB(A)	78,0

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



Size		300	
Efficiency: A, U			
Dimensions and weights			
A	°	mm	1905
	L	mm	1942
B	°L	mm	1041
C	°L	mm	1770
Empty weight	°	kg	2065
	L	kg	2250

Aermec reserves the right to make any modifications deemed necessary. All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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