

Climaveneta Technical Documentation
ERACS2-WQ-G05-Y_0802_1502_201812_EN

REGULATION (EU) N. 2015/1095 FOR MEDIUM TEMPERATURE PROCESS CHILLERS

Ecodesign requirements for process chillers

MULTIFUNCTION UNITS WATER SOURCE

ERACS2-WQ-G05-Y 0802 - 1502

Cooling Capacity Range 170 - 170 [kW] - (EN14511 VALUE)
Nominal Cooling Capacity at TdesignC Range 170 - 170 [kW]

EN



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1. REGULATION (EU) N. 2015/1095 FOR MEDIUM TEMPERATURE PROCESS CHILLERS

1.1 Scope of the document

This document is compliant with the Commission Regulation (EU) N. 2015/1095 regarding "REQUIREMENTS FOR PRODUCT INFORMATION" (Annex VII, Point 2). In particular, it deals with medium temperature process chillers and contains information required by Table 7 of the above-mentioned regulation, which is entitled "Information requirements for process chillers".

1.2 REGULATION (UE) N. 2015/1095 description

The COMMISSION REGULATION (EU) N. 2015/1095 of 5 May 2015, implementing Directive 2009/125/EC of the European Parliament and of the Council, establishes eco-design requirements for the placing on the market of: professional refrigerated storage cabinets and blast cabinets, condensing units operating at low or medium temperature or both and process chillers intended to operate at low or medium temperature. All these energy-related products are defined in Article 2 of the Regulation in question.

1.3 Description of the data declared by Mitsubishi Electric Hydronics & IT Cooling Systems

- Medium temperature process chiller: a product designed to cool down and continuously maintain the temperature of a liquid to provide cooling to a refrigerated appliance or system, whose aim is not to provide cooling for the thermal comfort of human beings. It is capable of delivering its rated refrigeration capacity at an indoor side heat exchanger outlet temperature of -8°C, at standard rating conditions.
- Rated refrigeration capacity (P): the refrigeration capacity that the medium temperature process chiller is able to reach when operating at full load at a specific rating point, expressed in kW.
- Seasonal Energy Performance Ratio (SEPR): the efficiency ratio of a medium temperature process chiller at standard rating conditions, representative of the variations in load and ambient temperature throughout the year, and calculated as the ratio between the annual refrigeration demand and the annual electricity consumption.
- Annual electricity consumption: result of the sum of the ratios between each bin-specific cooling demand and the corresponding bin-specific energy efficiency ratio, multiplied by the corresponding number of bin hours.
- Degradation coefficient for chillers: measure of efficiency loss due to cycling of the chiller.
- Capacity control: the ability of a chiller to change its cooling capacity by changing the volumetric flow rate of at least one of the fluids needed to operate the refrigeration cycle.

2. CLIMAVENETA CONTENTS UNIT

2.1 Table index

MULTIFUNCTION UNITS WATER SOURCE

ERACS2-WQ-G05-Y 0802 - 1502

Cooling Capacity Range 170 - 170 [kW]

Nominal Cooling Capacity at TdesignC Range 170 - 170 [kW]

Units	Version	Size				Pag.
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Type of condensing	Air cooled / Water cooled		
Refrigerant fluid(s)	Information to identify the refrigerant fluid(s) intended to be used with the condensing unit		-
Type	compressor driven vapour compression or sorption process		Compressor driven vapour compression
Operating temperature	t	[°C]	-
Seasonal energy performance ratio	SEPR		3,32
Annual electricity consumption	Q	[kWh]	374419
Parameters at full load and reference ambient temperature at rating point A			
Rated refrigeration capacity	P _A	[kW]	169,65
Rated power input	D _A	[kW]	62,90
Nominal EER	EER _A		2,70
Parameters at rating point B			
Rated refrigeration capacity	P _B	[kW]	158,39
Rated power input	D _B	[kW]	48,10
Declared EER	EER _B		3,29
Parameters at rating point C			
Rated refrigeration capacity	P _C	[kW]	147,07
Rated power input	D _C	[kW]	43,10
Declared EER	EER _C		3,41
Parameters at rating point D			
Rated refrigeration capacity	P _D	[kW]	135,76
Rated power input	D _D	[kW]	40,40
Declared EER	EER _D		3,36
Other items			
Capacity control	fixed/staged/variable		Variable
Degradation coefficient for chillers	C _c		0,9

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for a greener tomorrow

Eco Changes is the Mitsubishi Electric Group's environmental statement, and expresses the Group's stance on environmental management. Through a wide range of businesses, we are helping contribute to the realization of a sustainable society.



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