

## WATER CONDENSED CHILLERS



# SIGMA



### PROFILE

Water condensed chiller Series SIGMA have been designed to produce process cooled water for the cooling of industrial plants. They are completely independent units consisting of a hydraulic circuit complete with closed accumulation tank and circulation electric pump. The oversizing of the heat exchanger an evaporator allows the condenser to work in optimal conditions. The special construction guarantees to obtain an high efficiency, thanks to a very low power consumption even in extreme condition of use. The particular quietness of these machines allows the installation inside the production department.

### FLEXIBILITY AND EFFICIENCY

In addition to the production of cold water, with Series SIGMA chillers it is possible to produce process hot water (max 90°C) devoted to thermoregulation of the industrial processes. The machines depending on the chosen version are completed with nr. 1 cold circuit (OC version), with nr. 1 cold circuit with nr. 1 hot/cold circuit (CH version) and with nr. 2 hot/cold circuits (HH version). Thanks to the conformation of water circuits and to the special dimensioning of components, evaporator and condenser, chillers work in optimal conditions thus achieving high cooling efficiency.



## WATER CONDENSED CHILLERS

### TECHNICAL DATA

SIGMA (1)		09 OC	15 OC	20 OC	09 CH	15 CH	20 CH	09 HH	15 HH	20 HH
Cooling capacity (2)	<i>kW</i>	10,9	16,5	22,7	10,9	16,5	22,7	10,9	16,5	22,7
	<i>Kcal/h</i>	9.380	14.190	19.550	9.380	14.190	19.550	9.380	14.190	19.550
Compressor	<i>tipo</i>	SCROLL								
	<i>kW</i>	1,9	2,9	4,0	1,9	2,9	4,0	1,9	2,9	4,0
E.E.R.	<i>kW/kW</i>	5,75	5,70	5,70	5,75	5,70	5,70	5,75	5,70	5,70
Gas		R407C								
Recycling pump	<i>m3/h</i>	1,5	2,4	3,2	1,5	2,4	3,2	1,5	2,4	3,2
	<i>bar</i>	1,0	0,9	0,7	1,0	0,9	0,7	1,0	0,9	0,7
	<i>kW</i>	0,37	0,37	0,37	0,37	0,37	0,37	0,37	0,37	0,37
Users pump BP	<i>m3/h</i>	1,5	2,4	3,2	1,5	2,4	3,2	1,5	2,4	3,2
	<i>bar</i>	2,9	2,8	2,8	2,9	2,8	2,8	2,9	2,8	2,8
	<i>kW</i>	0,45	0,55	0,75	0,45	0,55	0,75	0,45	0,55	0,75
Users pump AP	<i>m3/h</i>	1,5	2,4	3,2	1,5	2,4	3,2	1,5	2,4	3,2
	<i>bar</i>	4,5	4,3	4,5	4,5	4,3	4,5	4,5	4,3	4,5
	<i>kW</i>	0,9	0,9	1,1	0,9	0,9	1,1	0,9	0,9	1,1
Heating	<i>nr.</i>	—	—	—	1	1	1	2	2	2
	<i>kW cad.</i>	—	—	—	6	6	9	6	6	9
Sound level (3)	<i>dB(A)</i>	56	57	58	56	57	58	56	57	58
Dimensions	<i>L mm</i>	450								
	<i>P mm</i>	920								
	<i>H mm</i>	1120								
Net weight	<i>kg</i>	175	180	190	185	190	200	185	190	200

(1) - Standard electric alimention 400V-3Ph-50Hz - Special on request

(2) - Water out temperature 15°C - Water cooling temperature 30°C

(3) - Sound pressure level at 10 metres

### COOLING CIRCUIT WITH DIRECT EXCHANGE

In thermoregulation complete models (version CH and HH) cooling and / or the maintenance of the temperature occurs for direct exchange (mixing between water circuit temperature control and water cooling circuit).

The advantage, besides the simplification of the hydraulic circuit, is the ability to eliminate the heat jump between the two circuits, thermoregulation and cooling, delivering water at the same temperature as the cooling water one, as limit condition.



**NOVA FRIGO Engineering S.r.l.**

Via Montebello, 5/D  
25017 - LONATO (BS) - ITALIA  
Tel: (+39) 030 99 13 250  
Fax: (+39) 030 99 19 043  
e-mail: [info@novafrigo.it](mailto:info@novafrigo.it)  
[www.novafrigo.it](http://www.novafrigo.it)