



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 or nr.2 cold circuit (+6°C / +18°C version C1 and version C2), and with nr. 1 or nr. 2 hot/cold circuits (+6°C / +90°C version H1 and version H2). 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 (singole zone)		Version C1 (+6°C / +18°C) - Version H1 (+6°C / +90°C)							
Model (1)		06-C1 / 06-H1	10-C1 / 10-H1	15-C1 / 15-H1	20-C1 / 20-H1	30-C1 / 30-H1	40-C1 / 40-H1	50-C1 / 50-H1	60-C1 / 60-H1
Cooling capacity (2)	kW	7,2	10,9	16,5	22,7	29,2	39,0	50,9	59,8
Compressor	tipo	SCROLL							
	kW	1,2	2,1	2,9	4,0	5,1	6,9	9,1	11,5
E.E.R.	kW/kW	6,0	5,75	5,70	5,70	5,70	5,65	5,60	5,20
Gas		R407C							
Water flow	m ³ /h	1,5	1,5	2,4	3,2	4,3	5,5	7,2	8,4
Recycling pump	kW	0,37	0,37	0,37	0,37	0,45	0,45	0,75	0,75
User pump LP (2,9 bar)	kW	0,45	0,45	0,55	0,75	0,75	1,1	1,5	1,5
User pump HP (4,5 bar)	kW	0,9	0,9	0,9	1,1	1,5	1,5	2,2	2,2
Electrical heating (ver. H1)	kW	6	6	6	9	9	9	12	12
Sound level (3)	dB(A)	45	45	46	47	48	49	50	50
Dimensions (L x W x H)	mm	450 x 920 x 1.120				540 x 1.190 x 1.270		800 x 1.190 x 1.270	
Net weight	kg	170	175	180	190	215	220	270	280

SIGMA (double zone)		Versione C2 (+6°C / +18°C) - Versione H2 (+6°C / +90°C)							
Model (1)		06-C2 / 06-H2	10-C2 / 10-H2	15-C2 / 15-H2	20-C2 / 20-H2	30-C2 / 30-H2	40-C2 / 40-H2	50-C2 / 50-H2	60-C2 / 60-H2
Cooling capacity (2)	kW	7,2	10,9	16,5	22,7	29,2	39,0	50,9	59,8
Compressor	tipo	SCROLL							
	kW	1,2	2,1	2,9	4,0	5,1	6,9	9,1	11,5
E.E.R.	kW/kW	6,0	5,75	5,70	5,70	5,70	5,65	5,60	5,20
Gas		R407C							
Water flow	m ³ /h	1,5 + 1,5	1,5 + 1,5	2,4 + 2,4	3,2 + 3,2	4,3 + 4,3	5,5 + 5,5	7,2 + 7,2	8,4 + 8,4
Recycling pump	kW	0,37	0,37	0,37	0,37	0,37	0,37	0,37	0,37
User pump LP (2,9 bar)	kW	0,45 + 0,45	0,45 + 0,45	0,55 + 0,55	0,75 + 0,75	0,75 + 0,75	1,1 + 1,1	1,5 + 1,5	1,5 + 1,5
User pump HP (4,5 bar)	kW	0,9 + 0,9	0,9 + 0,9	0,9 + 0,9	1,1 + 1,1	1,5 + 1,5	1,5 + 1,5	2,2 + 2,2	2,2 + 2,2
Electrical heating (ver. H2)	kW	6 + 6	6 + 6	6 + 6	9 + 9	9 + 9	9 + 9	12 + 12	12 + 12
Sound level (3)	dB(A)	47	47	48	49	50	51	52	52
Dimensions (L x W x H)	mm	450 x 920 x 1.120				540 x 1.190 x 1.270		800 x 1.190 x 1.270	
Net weight	kg	190	200	205	215	240	250	320	340

(1) - Standard electric alimentation 400V-3Ph-50Hz - Special on request (2) - Water out acqua temperature 15°C - Water cooling temperature 30°C (3) - Sound pressure level at 10 meters

COOLING CIRCUIT WITH DIRECT EXCHANGE

In thermoregulation 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.

